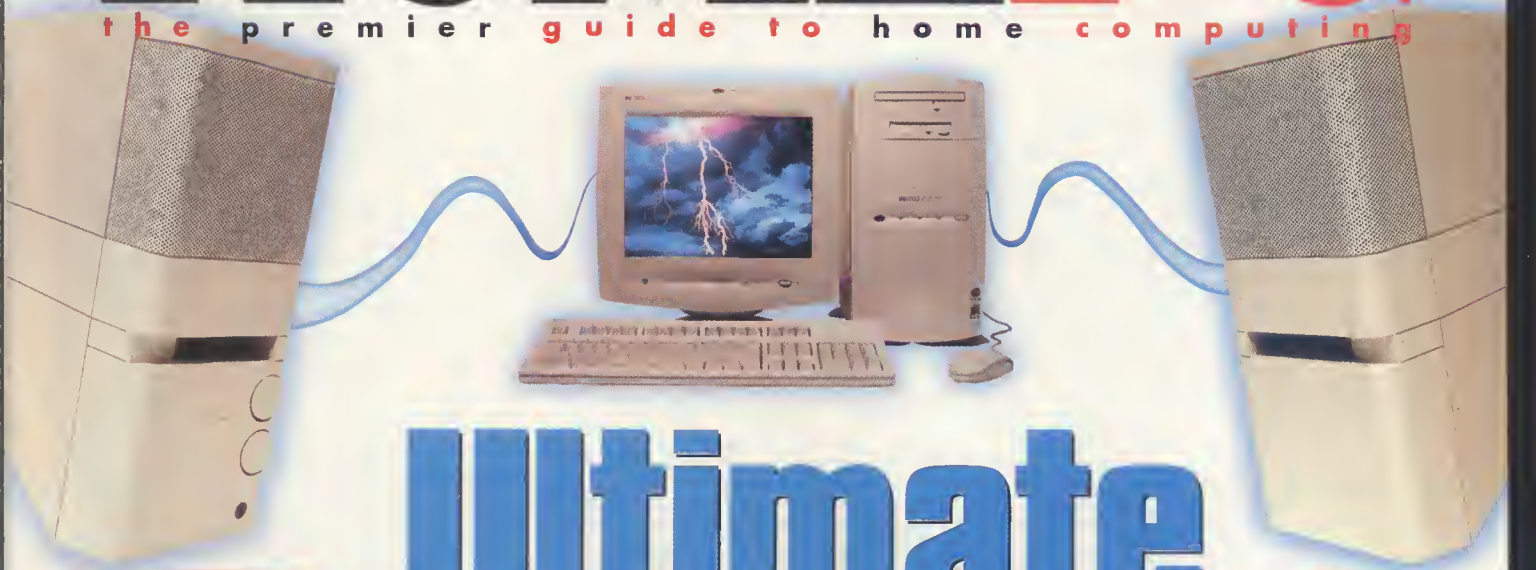
CMP

COMPLETE ON-LINE *OLYMPICS* GUIDE

HOMEPC

the premier guide to home computing



Ultimate Sound

PLUS:

Sheer Speed! 200-MHz PCs

The Best PC Speakers For Every Budget

ALSO INSIDE...

Master Your Fax/Modem

Super Win 95 Tools

6 Fast Multimedia Notebooks

July 1996

07 >

0 86441 18398 4

$2.95 U.S. $3.25 Canada

Display until July 23, 1996

intel inside
pentium
PROCESSOR

PhotoDrive is a trademark of Storm Primax Inc. The Intel Inside Logo and Pentium are registered trademarks of Intel Corporation. © 1996 Hewlett-Packard Company. PAV001

New diet?
Or new computer?

Now you can scan, store, print, edit, tweak and even e-mail all of your color photos with a new kind of computer. The HP Pavilion 7130P with built-in PhotoDrive.™ It's one of several HP Pavilions you can learn more about at http://www.hp.com/info/pchome2 or by calling 1-800-PC-HOME1, Ext. 2.

HP Pavilion 7130P

Built-in color photo scanner

133MHz Pentium® chip

1.6GB hord drive

16MB RAM

6X CD-ROM

28.8Kbps modem

It's not just a PC. It's an HP.

HEWLETT® PACKARD

Earl the printer sure is going to miss you.

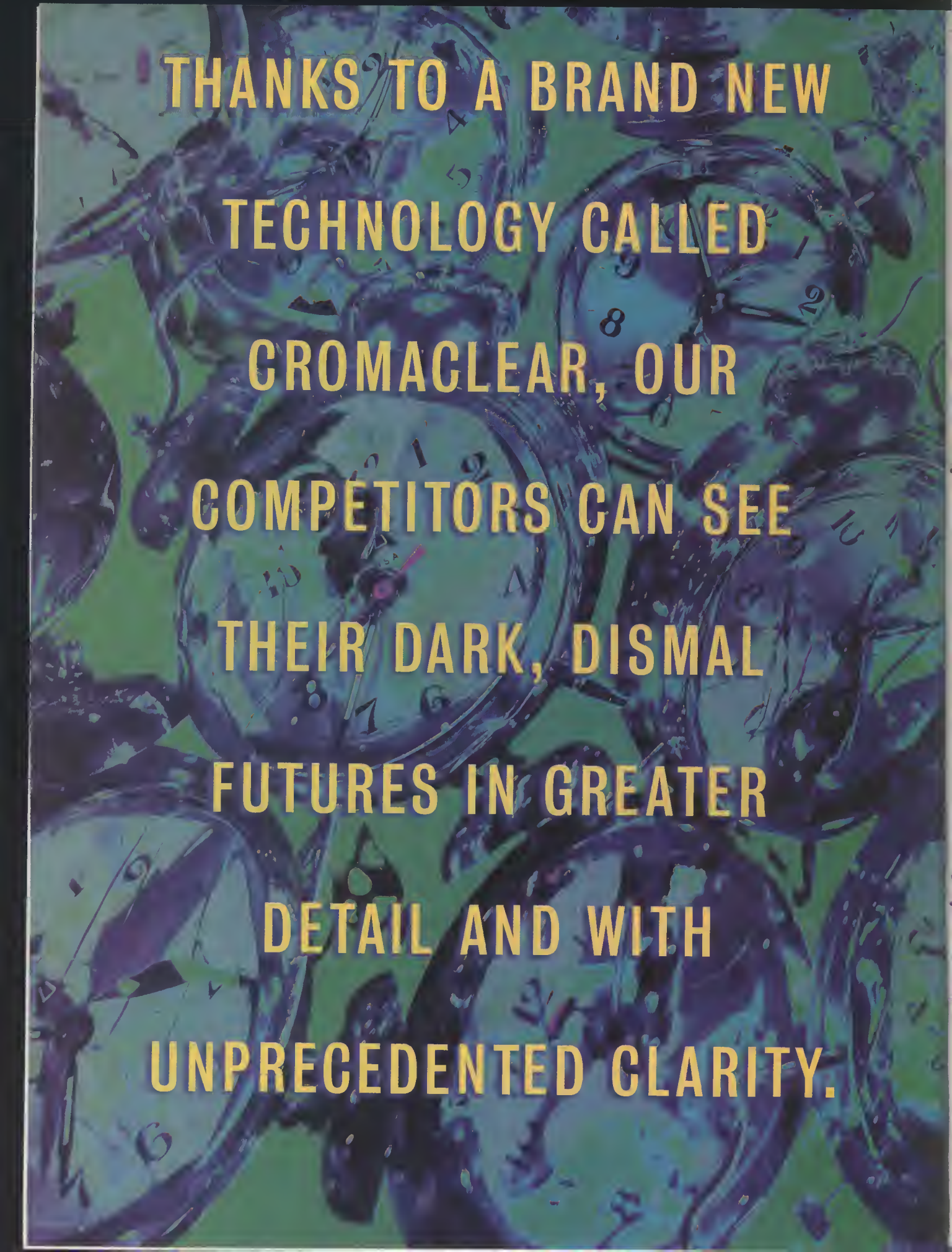
Your days of running to Earl at all hours are over. Thanks to the Canon Convertible™ Color Printer, the MultiPASS™ C2500. It's the only way to bring home brilliant color Bubble Jet™ printing, plain paper faxing, copying and

scanning. All in one solid machine, backed by our 24-hour InstantExchange warranty program. It even has exclusive Canon® Creative software. So you and the kids can do lots of imaginative things. Want to know more? See our web site, http://www.ccsi.canon.com or call 1-800-848-4123, Ext. 333. Hey, you can still keep in touch with old Earl. Just send him a fax.

Canon

©1996 Canon Computer Systems, Inc Canon is a registered trademark and Bubble Jet, Convertible and MultiPASS are trademarks of Canon Inc CCSI, 2995 Redhill Ave., Costa Mesa, CA 92626 In Canada, call 1-800-263-1121, Ext 333.

CIRCLE READER SERVICE NUMBER 10


THANKS TO A BRAND NEW
TECHNOLOGY CALLED
CROMACLEAR, OUR
COMPETITORS CAN SEE
THEIR DARK, DISMAL
FUTURES IN GREATER
DETAIL AND WITH
UNPRECEDENTED CLARITY.

The New MultiSync® M Series Monitors
With Revolutionary CromaClear™ CRT Technology.

Behold the brightness. The clarity. The look of panic in our competitors' eyes. Introducing the MultiSync M Series monitors from NEC – think of them less as new monitors, more as the standard by which all others will be judged.

The MultiSync M500™ and M700™ monitors are the first to incorporate CromaClear, NEC's patented new CRT technology. Similar in design to that found in today's televisions, CromaClear lets you view text, graphics and video with enhanced focus, greater color saturation, better contrast and increased depth and dimension. Simply put, you'll enjoy the brightest, sharpest, clearest images in the industry – just what you've come to expect from NEC.

What's more, our Video Boost feature automatically sets the monitor screen to the optimal contrast and brightness level for viewing TV and video images. Built-in speakers allow you to customize sound for movie, music, games and voice applications. There's even a built-in microphone.

In addition to PC and Macintosh® compatibility, the MultiSync M Series monitors feature Plug and Play compatibility for Windows® 95 and are backed by a 3-year limited warranty, one of the best in the industry. Perhaps of even more importance is the fact that each is backed by NEC's hard-earned reputation for building, without question, the most precise monitors in the world.

The MultiSync M Series monitors from NEC. Thanks to us, the only thing that appears dim is the future of our competitors. On second thought, what competitors?

MULTISYNC M500
15" CromaClear Technology CRT
(13.8" viewable image size)

MULTISYNC M700
17" CromaClear Technology CRT
(15.6" viewable image size)

Supports resolutions from 640 x 480 to 1280 x 1024

Supports refresh rates from 55 to 120Hz

Built-in speakers and microphone

OptiClear™ screen surface

On-Screen Manager Controls

Plug and Play compatible

3-year limited warranty

To learn more about either the MultiSync M500 or M700 monitors, call 1-800-NEC-INFO. To have the information sent to you by fax, simply call 1-800-366-0476 and request document #157201.

SEE, HEAR AND FEEL THE DIFFERENCE.™

NEC

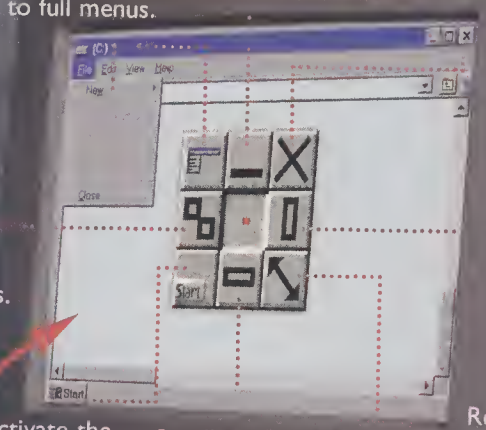
Designed for Microsoft Windows 95

Visit our new web site at http://www.nec.com

MultiSync is a registered trademark and CromaClear, OptiClear, M500, M700 and See, Hear and Feel the Difference are trademarks of NEC Technologies, Inc. Windows and the Windows 95 logo are registered trademarks of Microsoft Corporation. All other trademarks or registered trademarks are property of their respective owners. GSA #GS00K94AG5241PS01. ©1996 NEC Technologies, Inc. Key #27892.

"If you run Windows 95, you'll fly with MouseMan 96."

B. Featherstone
Aviation Designer



Introducing Revolutionary New HyperJump Technology

MouseMan® 96 by Logitech is the only mouse optimized for Windows® 95. It's everything you'd expect from the world's leading mouse maker, and more! MouseMan 96 includes the revolutionary HyperJump™ technology - which allows you to access eight important Windows 95 commands with a single click of the middle button. And you still get superb Logitech design, Plug and Play installation, and three button programmability. For information, or the dealer nearest you, call **1-800-732-2903**, or for information by fax call **1-800-245-0000**, Document 4030.

Visit Logitech and MouseMan 96 at http://www.logitech.com

HyperJump feature enlarged to show detail. ™/® - trademarks are the property of their respective owners.

LOGITECH

Products people love

HOMEPC

July 1996 vol.3, no.7

the premier guide to home computing

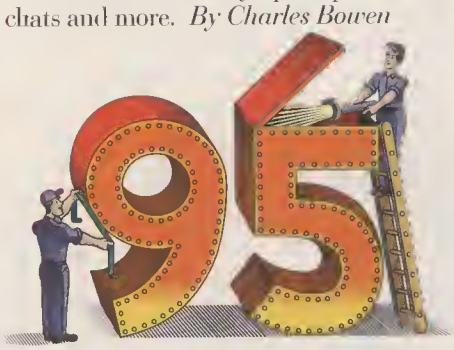
FEATURES

60 Sound advice

Trouble with treble? Not enough bass in your face? Audio speakers selling for as little as $40 can bring out the best in your CD-ROMs. We've auditioned 15 top-name sets, from budget to audiophile entries; lend us an ear, and we'll help you find the ideal pair for your needs. *By Robert J. Atkinson*

74 The dream team: Olympics and the Web

The best seat in the house for the Summer Games is at your PC. Keep our roadmap handy when the action heats up: It points you to Web pages that offer instant results for *every* sport, plus news, chats and more. *By Charles Bowen*



80 Give your Windows 95 PC a tune-up

Microsoft built utility programs into its newest operating system, but specialized software still does a better job of heading off PC breakdowns. Look here for 10 programs worthy of your toolbox. *By Michael J. Zulich*

94 Duet yourself guide

You and your computer can make beautiful music together with piano- or guitar-instruction software. We'll show you where four programs hit the high notes—or fall short. *By Shelley Cryan*

101 Meet the winners!

Three young essayists who told us how they'd use PCs to support learning now get a chance to put their words into action—they're this year's Computer Learning Contest champs.

CONSUMER LAB

103 Multimedia notebooks

Weighing a decision about a portable PC? Today's feature-rich laptops can lighten your wallet considerably, so hands-on research pays off. We asked a panel of consumers to give six fast performers a workout; see which sub-$4,000 system and which higher-priced model carried the day.

UP FRONT

15 From the Editor

25 Letters

31 Ask Dr. PC

Setting up Windows 95 shortcuts; a Myst-erious error; the sound of silence; breaking a *.log* jam.

37 Consumer Watchdog

A shopper seeks Web service, and now she's stuck; downbeat about upgrade.

BUYER'S GUIDE

44 Hot Stuff!

200-MHz Pentium PCs *are* fast: they're arriving early;

crossing hardware and housewares; next Netscape.

50 Best Buys

Color printer breaks the $200 barrier; discounts to the Macs; on-line coupons.

DO-IT-YOURSELF

123 Nuts + Bolts

Link two home computers by using Windows 95.

Cover photo illustration by Barry Blackman: speaker photo by Kerry Kehoe; illustration by Peter Hoey

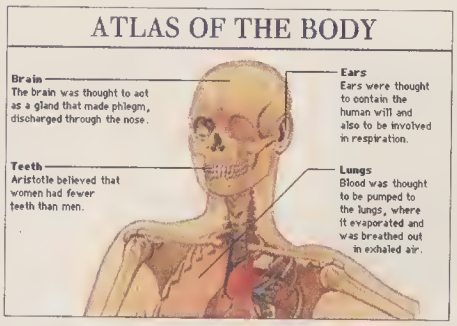
REVIEWS

149 Fun and Games

- Zork Nemesis
- Silent Thunder: A-10 Tank Killer 2
- Sid Meier's Civilization II
- Treasure Quest

Plus: Hit the Web to find sites that hold clues and hints for Zork Nemesis and Treasure Quest; learn how add-on levels can extend the fun for fans of Links 386, Microsoft Golf, Descent II, Heretic, Hexen and Yon Don't Know Jack—the extensions generally cost less than $20, and some are even free.

'Silent,' but deadly (if you're in a tank).



Medical guides: First-rate treatments.

157 Lifestyles + Learning

- Family Tree Maker Deluxe Edition II
- The American Heritage Talking Dictionary
- Manage Stress
- Mayo Clinic Family Health
- American Medical Association Family Medical Guide

Plus: Checking into the Mayo Clinic's Online Health Network.

163 Kid Faves

- Schoolhouse Rock! Grammar Rock
- Lambchop Loves Music
- Dinotopia
- Peter Rabbit's Math Garden
- The Great Word Adventure 1

Plus: To bring Peter Rabbit into the multimedia era, Mindscape software developers took a journey into the past.

Word Adventure is nearly letter-perfect.

NEC's Ready for voice commands.

169 Gear + Gadgets

- NEC Ready 9617 multimedia PC
- Adaptec Power Storage hard drive
- Hewlett-Packard OfficeJet 350 all-in-one device
- Plextor 8Plex eight-speed internal CD-ROM drive

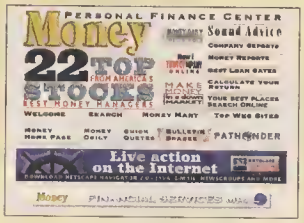
Plus: A new on-line service lets technicians fix system files from afar; the advice squad explains why you need to call on "the terminator" when you want to connect several SCSI devices in a row.

HOMEPC

PERSONAL PRODUCTIVITY

129 Financial Adviser

If you're buying or selling a house, move into cyber-



space first; we've got some of the most valuable Web addresses in real estate.

137 Working at Home

Get the fax: Eight reasons to think of your PC as "transmission control."

ELECTRONIC COMMUNITIES

10 *HomePC* On-line

Parents, don't miss our live chat covering the best science software for kids.

143 On-line Connections

Three tales of people helping people via the Internet demonstrate the virtual community's real heart.

204 The Cyber Ace

Find up-to-the-minute news, visit Central Park, and take a roller coaster ride, courtesy of the Web.

188 Advertisers Index

There are other ways to accelerate your multimedia, but may we suggest our new Graphics Blaster.

Multimedia can be a frustrating thing. Even on today's hottest systems, video playback can end up looking like a postage stamp with fewer colors than you get from a box of crayons. Or, when you zoom it to full screen, it looks like a slide show instead of a smoothly running movie. Before you resort to extremes, you might want to try our new Graphics Blaster™ multimedia accelerator from Creative Labs.

Graphics Blaster features high-tech video acceleration functions like asymptotic scaling, horizontal and vertical filtering and color space conversion built right into the hardware. The end result is video that glides onto the screen in dazzling true color without dropping frames. And the powerful 64-bit graphics engine delivers Windows® performance that will blow you away.

Best of all, Graphics Blaster won't blow away your bank account. Our top-of-the-line Graphics Blaster MA302 with 2MB of state-of-the-art Rambus memory — the same high performance memory used on Silicon Graphics workstations — costs less than comparable boards using yesterday's tired VRAM memory.

So when you're ready to boost your graphics and video performance to the stratosphere, pick up a Graphics Blaster at your nearest Creative Labs dealer. It's got the multimedia muscle your system deserves. What else would you expect from Creative Labs, the leader in high-performance multimedia products.

Introducing Graphics Blaster Multimedia Accelerators

	64-bit Graphics Engine	16.7 Million Colors	Maximum Resolution	Refresh Rate	Plug and Play Monitor	Full-Screen Video Playback
Typical Graphics Accelerator	64 bit	✓	1280 x 1024	120Hz		
Graphics Blaster MA302 Multimedia Accelerator	64 bit	✓	1600 x 1200	150Hz	✓	3

CREATIVE

CREATIVE LABS, INC.

http://www.creativelabs.com

For more information, call our Faxback Service at 405-372-5227 or Product Information at 800-998-5227 x 136. © 1996 Creative Technology Ltd. All rights reserved. Graphics Blaster is a trademark of Creative Technology Ltd. The Creative logo is a registered trademark of Creative Technology Ltd. Windows is a registered trademark of Microsoft Corporation. All other brand or product names are trademarks or registered trademarks of their respective holders. Specifications subject to change without notice.

HOMEPC on-line

WHERE TO FIND US

AMERICA ONLINE: Keyword: HomePC

WORLD WIDE WEB: *http://techweb.cmp.com/hpc/*

E-MAIL: On AOL, address e-mail to HomePC; from any other on-line service, address it to *homepc@aol.com*

LIVE EVENTS ON AMERICA ONLINE!

6/25 **Tuesday, 8 p.m. EDT**
Wild Science at the Keyboard

From slimy worms to furry mammals, tranquil coral reefs to explosive volcanoes, software brings science alive for kids. Join *Children's Software Revue* editor Warren Buckleitner and *HomePC* education editor Carol Ellison to discuss today's best science programs and how to experiment with them to unlock youngsters' curiosity. (Keyword: HomePC; then click on Join the Event and HomePC Conference Room).

7/9 **Tuesday, 8 p.m. EDT**
Dr. PC's On-line Computer Clinic

Computer snags getting you down? Meet Dr. PC and his team for a lively Q&A session filled with suggestions and solutions. (Keyword: HomePC; then click on Join the Event and Enter the Rotunda.)

You just met the new talent scout for the hottest talk show on TV. You have one chance to knock his socks off and get a shot at becoming America's newest comedy sensation. Go for it, but...

Don't Quit Your Day Job!

Comedy Central, CompuServe and Philips Media, in conjunction with *HomePC*, present Don't Quit Your Day Job—the first-ever on-line talent search.

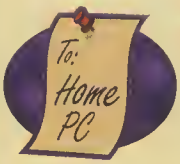
Between June 1 and July 1, 36 contestants will be selected to participate in the seven-week event. The winner, to be chosen by an on-line audience on Aug. 29, will be flown to Los Angeles to perform at the world-famous Improv and meet its owner, Budd Friedman. He or she will also attend a taping of *The Tonight Show* with Jay Leno, and will be featured in a performance in the CompuServe Convention Center.

For complete details, visit Comedy Central's World Wide Web site (*http://www.comcentral.com*).

ON AOL AND THE WEB, YOU'LL FIND...

This month's issue of *HomePC* in its entirety. You'll also discover some on-line exclusives, including up-to-the-minute Best Buys selections and bonus Cyber Ace sites.

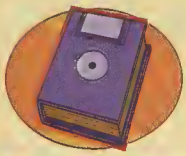
A special **search engine** that allows you to enter a keyword and find any articles from past issues of *HomePC* covering the subject that interests you.



Message boards, organized by topic, that let you interact with the editors of *HomePC* as well as other readers.

ON AOL, WE ALSO OFFER...

The **Children's Software Revue,** edited by Warren Buckleitner—a database of more than 1,500 reviews of children's software. All product reviews are catalogued by title within an easy-to-use alphabetical index.



HomePC's **Software Libraries,** containing hundreds of demo, freeware and shareware versions of games, utilities, productivity programs, educational software, screen savers and more, for Windows, DOS and Macintosh. For downloading tips, go to HomePC's main screen and open the "Don't Miss This!" folder and then the "News and Notes" folder, where you'll find a document called "How to check out software from on-line libraries."

Illustrations by Jeffrey Pelo

You've got *insurance* *if* Johnny crashes *your car.*

But *what if* he crashes your *hard drive?*

That's why you've got to buy an Iomega Ditto drive. It's a cool little red drive that works like insurance for all the stuff on your PC: software applications, files, work, games, everything.

You just point and click and the Ditto drive goes to work backing up your entire hard drive. And while it works, you can continue to work. Naturally, installation has been made super simple. All of which has made Iomega one of the fastest-growing data storage companies in the world.

So protect all the important stuff on your PC with the Ditto drive. At $149.95, how can you afford not to? See your computer or electronics dealer today. Because, as you know, accidents can happen.

BECAUSE IT'S YOUR STUFF.™

© 1996 Iomega Corporation. Iomega, the Iomega logo, and Ditto are trademarks of the Iomega Corporation. "3M" and "Travan" are trademarks of the Minnesota Mining and Manufacturing Company. Prices listed are estimated street prices. Actual prices may vary.

At leading computer and electronic stores

The Ditto™ *Easy* 800

It's like insurance for the important stuff on your PC.

Installs in 5 minutes.

Also available in a 3.2 gigabyte model.

3M TR-1 MINICARTRIDGES

We recommend 3M Travan™ TR-1 minicartridges for use with the Ditto *Easy* 800 drive.

1-step software

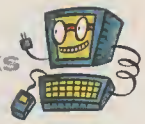
Easy to use point-and-click operation.

Backs up while you work.

iomega™

Hi.

Plymouth Neon

Sure, you have to go to the dealership to test-drive and buy them. But to scope out the new Plymouths, you can just fire up your World Wide Web browser and point it to http://www.plymouthcars.com. You'll arrive at Plymouth Place™ on the World Wide Web. Dive in among the hyperlinks  and you'll find a virtual showroom full of information on Plymouth Neon (sedan and coupe),

Everyone in the Plymouth at th

http://www.ply

Plymouth Voyager and Grand Voyager and even upcoming models like the new Plymouth Breeze family sports sedan. There's more too: information on leasing and financing programs;

Plymouth Breeze

schedules for our Plymouth Place mobile showrooms; information on our Automobility Program for drivers with disabilities; contests; photos; news of special events; and

Always wear your seat belt.

jump-offs to other automotive hot spots. And not a sales contract in sight. So next time you're cruising the Net, stop by our place–Plymouth Place. (Did we mention the address?) And if you want to get off the information superhighway and see Plymouth live, you can also check, at Plymouth Place on the Web, the schedule

Plymouth Voyager

world can reach e same address.

mouthcars.com

for the Plymouth Place mobile

showrooms at malls and other locations all over the country, or visit your local Plymouth dealer. Oh, and by the way, everyone in the United States can also reach us at the same phone number: 1-800-PLYMOUTH.

One clever idea after another. ***That's Plymouth.***

CIRCLE READER SERVICE NUMBER 12

30-bit Color Scanning For Unreal Images At An Unbelieveable Price.

Introducing Microtek's Incredibly Fast 30-bit, Single-Pass Color Flatbed Scanner — Starting At Just $599!

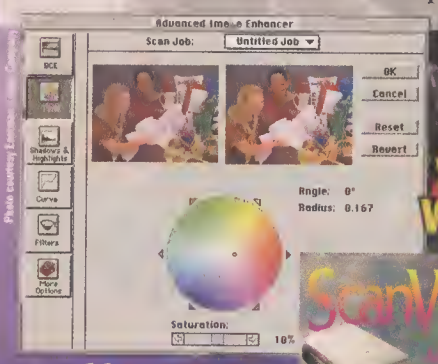
Producing digital art for printing? Developing a multimedia presentation? Microtek's new 30-bit *ScanMaker® E6* color flatbed scanner captures images with amazing highlight and shadow detail in stunning lifelike color. The ScanMaker E6 at $599 includes Microtek's award-winning *ScanWizard™* scanning software to descreen, tint, sharpen, blur, darken, lighten, saturate, desaturate, emboss or add other special effects to images right before your eyes — *even before you scan them!*

At this low price, the ScanMaker E6 also includes *Caere's OmniPage Limited Edition®* for scanning pages of text, *U-Lead's PhotoImpact 3.0 (full version)* and *ImagePals Go* for Windows; or *MicroFrontier's Color It!* for Macintosh.

Or ask about the *ScanMaker® E6 Pro™* at just $799 which also includes Microtek's *ScanWizard* scanning software and *Caere's OmniPage Limited Edition* as well as the *full-version of Adobe Photoshop* for Windows; or the *full-version of Live Picture 2.1* for Macintosh.

Also consider Microtek's new *ScanMaker® E3* which *starts at just $399* and features 2400 dpi maximum resolution, *ScanWizard*, *Caere's OmniPage Limited Edition* for Windows or Macintosh and either *U-Lead's PhotoImpact 3.0 SE* and *ImagePals Go* for Windows or *MicroFrontier's Color It!* for Macintosh.

For the location of your nearest Microtek reseller or for more information, call 1-800-654-4160, use our convenient Auto Tech fax-back line at (310) 297-5101, or check out our Web site at **http://www.mteklab.com**.



"★★★★" MacWEEK (August 7, 1995)

Works with Windows 95!

ScanMaker E6

- 30-bit color depth
- Incredibly fast single-pass speed
- 600 x 1200 optical resolution
- 4800 dpi maximum resolution
- Includes ScanWizard™, OCR and image-editing software for Windows or Macintosh

Starting at just $599!

MICROTEK

Better Images Through Innovation.

All prices mentioned nre Unitad Stetes of Amarica suggestnd street prices. The following are tradamarks or registered tradamarks of thair respectiva companies: Microtak, ScanMeker, Advancad Imnge Enhancar and ScenWizord of Microtek Lab, Inc.; Windows of Microsoft Corporation; Mecintosh of Applo Computar, Inc. Adobe Photoshop of Adobn Systems, Inc.; PhotoImpect and ImagaPals Go of U-Laad Systams, Inc.; Color It! of MicroFrontier, Inc.; OmniPage Limitad Edition of Caare Corporation; Live Picture of Livn Picture, Inc. All other trademarks or registnred tredemarks are the proparty of thair raspectiva holdars. Pricas, specifications and software bundles are subject to change without notice. E6E3Q2WM

from the editor

Software boxes: Innovators aren't wasting time

Five months ago in this space, I vented my feelings about wasteful software packaging and invited you to tell me how *you* felt about it. Some of your replies have appeared on our Letters pages over the past few months, and we've received many more that we haven't had room to print. To ensure that your opinions were heard by the industry, I've been forwarding all the mail to the Software Publishers Association.

I've also heard from people in the business who've passed along samples of alternative packaging (you can see them below). Some of the packages strive to be environmentally friendly, others follow a "Smaller is better" approach, and still others use "keeper" boxes that minimize waste.

Jeff Herman, president of Multimedia Publishing & Packaging, sent us his company's durable, reusable vinyl album for permanent home storage of disc and manual; Saban Entertainment used the package for its Mighty Morphin Power Rangers disc. While it's not biodegradable, Herman says it's environmentally friendly because it's used for long-term storage, with no extraneous packaging.

Budget-software makers have been leading the way in tests of creative alternative packaging, aiming to cut both waste and retail prices. For example, titles in Maxis's Collector Series (see this issue's Best Buys, page 50) are showcased in a simple cardboard sleeve. Other budget-disc companies have taken the leap of faith and done away with cardboard altogether, displaying CD-ROMs in their jewel boxes alone.

While this practice alone could make a huge dent in the waste problem, one of the enduring ironies is that consumer dollars tend to follow the bigger boxes; research suggests shoppers feel they're getting more value for their money when they take home a substantial box. According to packaging consultant Pamela A. Sansbury of Sansbury & Associates, software maker Voyager tested a package only slightly larger than a paperback book that used its space wisely to fully explain the product, yet buyers tended to reject it because it was smaller than others on the shelf.

Such boxes fare better in Europe. Dutch company AGI has been an innovator there, producing a slide pack that holds several CD-ROMs or floppies for retail display, as well as the Shufflepack®, which fits several CD-ROMs into an accordion-like box, and a book-like "keeper" box with room to display information on the front and back.

Here in the United States, the Software Publishers Association this spring announced new packaging guidelines that advise making all essential product information available on the jewel box; the guidelines don't address large cardboard boxes and associated waste.

The SPA also established its first Excellence in Software Packaging Awards, to be presented Oct. 6 at its annual conference. Nine awards will be presented for creative/design and most consumer-friendly packaging in specific product categories, in addition to an overall award honoring the most environmentally responsible package.

I hope casting a spotlight on the industry's innovators will encourage all developers to look more closely at their packaging. Consultant Sansbury believes software publishers want to change, but "no one wants to be the first." She suggests it may take a retail giant such as Egghead or CompUSA to say to the software industry, "This is how you do it for my store." And if enough of us tell the stores, "This is what I want when I shop," maybe it'll happen sooner than some might think. ●

Ellen Pearlman

Ellen Pearlman, Editor-in-Chief

Photographs by Jeff Weiner (above) and Kerry Kehoe (right)

Because bad power takes
make sure new Back-UPS

LIFETIME EQUIPMENT PROTECTION
$25,000
FOR AS LONG AS YOU OWN THIS PRODUCT, IF YOUR PROPERLY CONNECTED EQUIPMENT IS EVER DAMAGED BY AN AC SURGE, INCLUDING SURGES DUE TO LIGHTNING, APC WILL REPAIR OR REPLACE OUR PRODUCT AND UP TO $25,000 OF CONNECTED EQUIPMENT (SEE POLICY FOR DETAILS). VALID IN U.S. AND CANADA ONLY.

Guaranteed Protection against all power problems, on all power paths, for your PC and peripherals.

Back-UPS Office's compact design installs easily an desktop, flaar, ar maunts ta wall. Its ninety-degree plug fits flush against the wall.

PC World 20 Best Upgrades

PC Magazine UK Editors' Choice

Windows Magazine

Network News

APC products have won more awards for reliability than all other UPS vendors combined.

Integrates the Security af a Surge Suppressar with the Pawer af a UPS
Back-UPS Office provides enough outlets to protect your entire system. Six outlets guard your hardwore with full time surge protection. Three of the six outlets provide instantaneous battery backup to keep your system from croshing in the event of a brownout or blackout.

Battery Replacement Warning Prevents Dawntime
An LED signols when the Back-UPS Office's internal self-test finds the battery near the end of its life. You have 6-8 weeks replacement worning. Batteries typicolly lost 3-6 yeors, ond are user-reploceable.

Site-Wiring Fault Indicatar
Without o proper ground, most surge protection is useless. Back-UPS Office olerts you to wiring problems such os missing ground ond reversed polority, two common wiring mistakes which otherwise would require on electricion's visit to diagnose.

Copyright 1996, APC. Trademarks are the property of their owners. ABO001

multiple paths to your PC, Office™ gets there first

Protect ME! with APC

Bringing up the issue is awkward, but inevitable: You have a better chance of winning the lottery than of escaping power problems. Sooner or later, every computer user learns about surges, brownouts, spikes and blackouts. Unfortunately, most learn the hard way. Power problems are the single largest cause of computer data loss and hardware damage. If a power sag makes your modem drop the line while you're downloading a file from the Internet, or causes your keyboard to lock before you've saved work, you lose time, money and end up spending another late night at the office to meet your deadlines.

Only Back-UPS Office provides single device Multipath™ protection for all your equipment

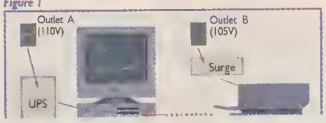
The Multipath™ Power Protection Advantage	Traditional Surge Protector	Traditional UPS	Back-UPS Office
Protected Paths			
AC	•	•	•
Data			•
Phone			•
Total Outlets	7	2	6
Number of Block Outlets			2
Protection from			
Surges	•	•	•
Spikes	•	•	•
Blackouts		•	•
Brownouts		•	•
Typical Runtime in Minutes with Pentium 100 w/15" monitor		10	10
Battery backup for			
PC		•	•
Monitor		•	•
Storage Devices/Zip Drives		•	•
Full-time surge protection for			
Fax/Modem	•		•
Laser Printer	•		•
Speakers	•		•
Dataline protection for			
Internet or Network			•

Traditionally protecting all your equipment meant buying both a surge suppressor and a UPS. Even then only your AC line was protected. New Back-UPS Office protects all the paths to all your equipment.

Multiple peripherals and data lines to and from your system are vital, but dangerous. Without them, you can't do your job. However, plugging a phone line into your computer doubles your vulnerability to power problems; add any peripheral, and it triples. Even if your computer's AC power-line is shielded, when a surge hits an unprotected peripheral, it can blaze down serial and data lines, and toast your expensive PC.

Only Back-UPS Office provides true common ground protection

Figure 1



Until now, protection for your entire system required several devices. But multi-device protection can leave you vulnerable to line noise and unwanted data glitches created by voltage differentials between outlets.

reliable, true
h" protection for
aneous battery
ed operation of your
storage devices. Full-
ads a safety net
rated peripherals,
kers, and phone
convenient
andles all size plugs.

on means true
l instantaneous
ashing. It means
th the power of a

FREE Solutions '96

What are the myths and musts of PC protection? What are the 10 most common power protection mistakes? The top tips for adding reliability to your PC? Get your FREE copy and find out!

○ **YES!** Please send me a FREE Solutions '96 Catalog
For prompt service, please fill out all information completely.

Name ..... Title: .....

Company .....

Address .....

.....

City: ..... State: ..... Zip: .....

Phone: ..... Fax: .....

E-Mail: .....

Brands of UPS used: .....

servers/PCs to be protected: .....

☐ End User ☐ Reseller

☐ Is this your first contact with APC?

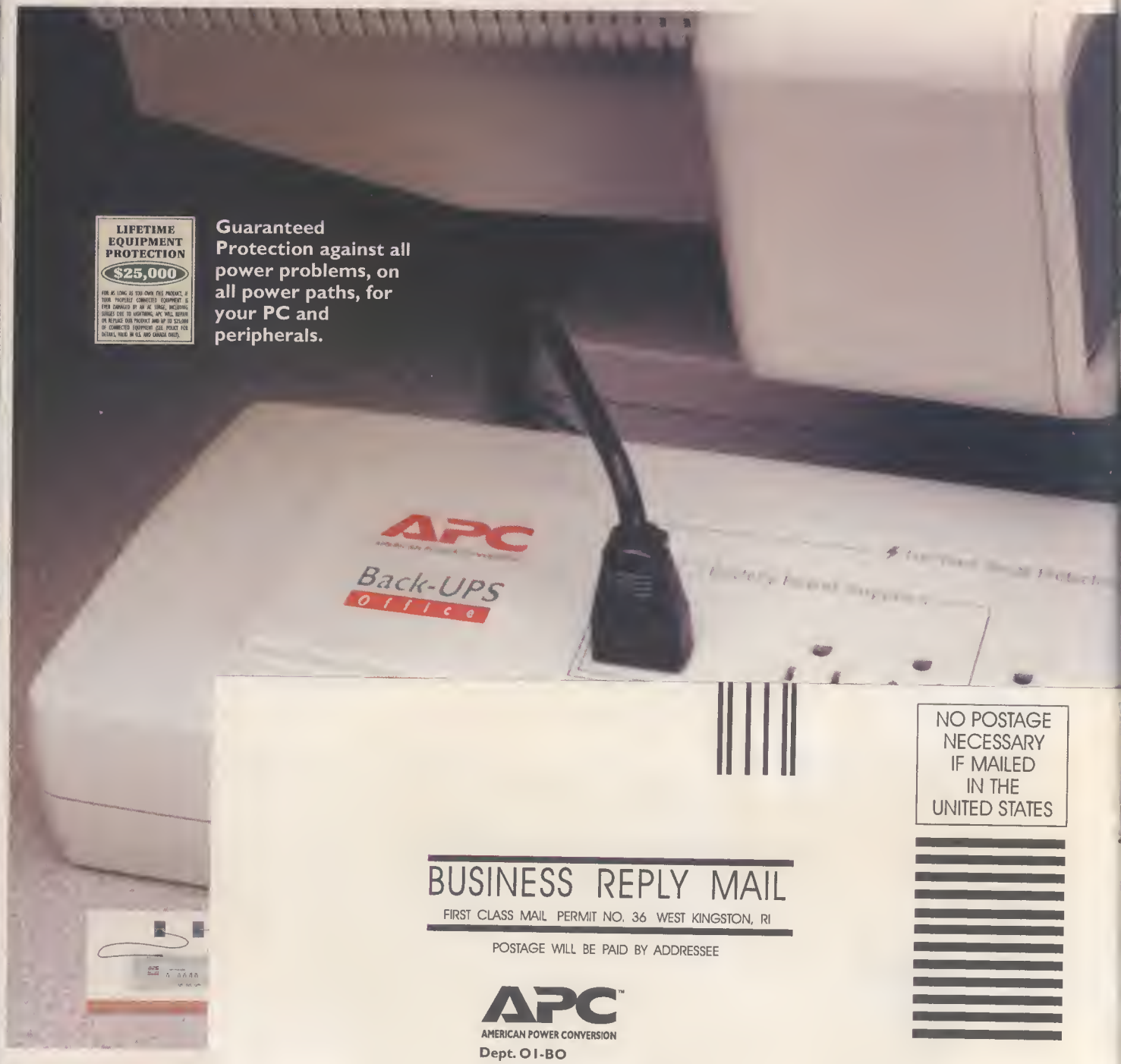
APC
AMERICAN POWER CONVERSION

Dept. 01-BO

© 1996 American Power Conversion. All Rights Reserved. All trademarks are property of their owners.BBO002

PC®
CONVERSION
BO
4APC
17-FAXX Powerfax
cc.com
gston RI 02892 USA

Because bad power takes
make sure new Back-UPS



Guaranteed Protection against all power problems, on all power paths, for your PC and peripherals.

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. 36 WEST KINGSTON, RI

POSTAGE WILL BE PAID BY ADDRESSEE

APC™

AMERICAN POWER CONVERSION

Dept. O1-BO

132 Fairgrounds Road
P.O. Box 278
West Kingston, RI 02892-9920

PC World 20 Best Upgrades

APC products
awards for reli
other UPS vend

Copyright 1996, APC. Trademarks an

multiple paths to your PC, Office™ gets there first

Convenient BlockSafe™ Outlet Spacing
Back-UPS Office's outlets are spaced to accommodate all size plugs, including large transformer blocks. You don't have to sacrifice the use of any of your outlets if you use block plugs.

Internet Ready Fax/Modem Protection
Back-UPS Office's built-in phone line/10 Base-T network cable surge protection prevents data line surges from damaging internal and external modems, motherboards, input/output cards, and other system components.

Bringing up the issue is awkward, but inevitable: You have a better chance of winning the lottery than of escaping power problems. Sooner or later, every computer user learns about surges, brownouts, spikes and blackouts. Unfortunately, most learn the hard way. Power problems are the single largest cause of computer data loss and hardware damage. If a power sag makes your modem drop the line while you're downloading a file from the Internet, or causes your keyboard to lock before you've saved work, you lose time, money and end up spending another late night at the office to meet your deadlines.

Only Back-UPS Office provides single device Multipath™ protection for all your equipment

The Multipath™ Power Protection Advantage	Traditional Surge Protector	Traditional UPS	Back-UPS Office
Protected Paths			
AC	•	•	•
Data			•
Phone			•
Total Outlets	2	2	6
Number of Block Outlets			2
Protection from			
Surges	•	•	•
Spikes	•	•	•
Blackouts		•	•
Brownouts		•	•
Typical Runtime in Minutes			
with Pentium 100 w/15" monitor		10	10
Battery backup for			
PC		•	•
Monitor		•	•
Sensitive Devices/Zip Drives		•	•
Full-time surge protection for			
Fax/Modem	•		•
Laser Printer	•		•
Speakers	•		•
Dataline protection for			
Internet or Network			•

Traditionally protecting all your equipment meant buying both a surge suppressor and a UPS. Even then only your AC line was protected. New Back-UPS Office protects all the paths to all your equipment.

Multiple peripherals and data lines to and from your system are vital, but dangerous. Without them, you can't do your job. However, plugging a phone line into your computer doubles your vulnerability to power problems; add any peripheral, and it triples. Even if your computer's AC power-line is shielded, when a surge hits an unprotected peripheral, it can blaze down serial and data lines, and toast your expensive PC.

Only Back-UPS Office provides true common ground protection

Figure 1

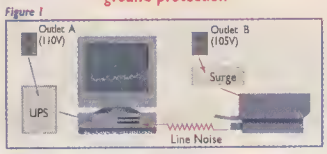


Figure 2

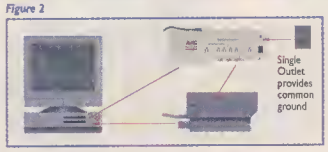


Figure 1: voltage differentials between multiple outlets create line noise and data glitches. Figure 2: Back-UPS Office's common ground design eliminates the danger of voltage differentials.

Until now, protection for your entire system required several devices. But multi-device protection can leave you vulnerable to line noise and unwanted data glitches created by voltage differentials between outlets.

Back-UPS Office provides reliable, true common ground Multipath™ protection for your entire system. Instantaneous battery backup ensures uninterrupted operation of your CPU, monitor and external storage devices. Full-time surge suppression spreads a safety net around any remaining integrated peripherals, like modems, printers, speakers, and phone systems. Back-UPS Office's convenient BlockSafe™ outlet spacing handles all size plugs.

Back-UPS Office protection means true Multipath™ protection, clean, safe power to every peripheral, and instantaneous battery backup to keep your cutting edge system and O/S from crashing. It means protection for less by integrating the security of a surge suppressor with the power of a UPS, guaranteed up to $25,000.

Protect yourself before you kick yourself. Get your new Back-UPS Office today (list price: $179.99), or call APC for a FREE 60-page catalog!

Ask for APC award-winning power protection wherever top-quality computer products are sold.

APC®

AMERICAN POWER CONVERSION

Dept.01-BO

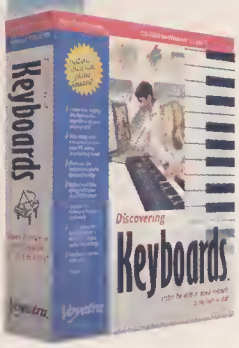
800-800-4APC

401-788-2797 fax / 800-347-FAXX Powerfax
http://www.apcc.com
132 Fairgrounds Rd., W. Kingston RI 02892 USA

CIRCLE READER SERVICE NUMBER 70

Discovering
Keyboards™

The perfect companion for PCs with MIDI keyboards.



♪ Learn how to play
♪ Explore centuries of keyboard history
♪ Perform with your own PC backup band
♪ Have fun learning with music games
♪ Discover the secrets of MIDI

All on one CD-ROM for Windows®

from Voyetra®
The experts in computer music

To order, or for more information:
1.800.233.9377

Voyetra Technologies
Dept. HPC • 5 Odell Plaza • Yonkers • NY 10701
Phone: 914.966.0600 • Fax: 914.966.1102
http://www.voyetra.com • info@voyetra.com

Discovering Keyboards is a trademark of Voyetra Technologies.

CIRCLE READER SERVICE NUMBER 63

HOMEPC®

Publisher	**Dan Schwartz**	*dschwart@cmp.com*
Editor-in-Chief	**Ellen Pearlman**	*epearlma@cmp.com*
Executive Editor	**Amy Lipton**	*alipton@cmp.com*
Art Director	**David Loewy**	*dloewy@cmp.com*
Features Editor	**Andrea Linne**	*alinne@cmp.com*
Asst. Managing Editor	**Steven Korn**	*skorn@cmp.com*
Asst. Managing Editor	**Audrey Thompson**	*athompso@cmp.com*
Departments Editor	**Melanie Berger**	*melanielhpc@aol.com*
Articles Editor	**Jennifer Zaino**	*jzaino@cmp.com*
Articles Editor	**Mark Roberti**	*mroberti@cmp.com*
Senior Editor/Education	**Carol Ellison**	*cellison@cmp.com*
Senior Editor/Entertainment	**Julie Cohen**	*jcohen@cmp.com*
Senior Technology Editor	**Sean Fulton**	*sfulton@cmp.com*
Senior Editor/On-line	**John Eckhouse**	*eckhouse@cerf.net*
Associate Art Director	**James Keleher**	*jkeleher@cmp.com*
Production Manager/Editorial	**Bill Mallon**	*bmallon@cmp.com*
Designer	**Dean Markadakis**	*dmarkada@cmp.com*
Senior Production Editor	**Laura House**	*lhouse@cmp.com*
Lab Technician	**Sun Ying Tam**	*sytam@cmp.com*
Assistant Editor	**Jennifer Triverio**	*jtriveri@cmp.com*
Lab Assistant	**Albert Chan**	*achan@cmp.com*
Administrative Assistant	**Anne Clifford**	*acliffor@cmp.com*
On-line Projects Manager	**Steven Martin**	*sterenhpc@aol.com*
Lab Administrator	**Beth Rimmels**	*brimmels@cmp.com*

Contributing Editors: Sharon McCoy Bell, Charles Bowen, Stephen Brewer, Warren Buckleitner, David D. Busch, Fred Davis, Carolyn Jabs, Pam Kane, Lawrence J. Magid, Jeremy Schlosberg

Educational Advisory Board: Sharon McCoy Bell, *director of educational technology, New Orleans Public Schools*; Ellen Bialo, *president, Interactive Educational Systems Design*; Warren Buckleitner, *editor of the* Children's Software Revue; Richard Fentz, *manager of training and instruction, Kent (Wash.) School District*; Sue Kamp, *education project manager, Software Publishers Association*; Carol Kleuow, *director of information resources, Oakland Schools, Waterford, Mich.*; Nadia Makar, *coordinator college/industry relations, Union City (N.J.) Schools*; Bernajeen Porter, *technical consultant, Colorado State Board of Education*; Mary Claire Scanlon, *president, Scanlon & Associates, educational consulting*

Editorial Contacts: *Features*, Andrea Linne; *Hot Stuff!*, *Best Buys*, Jennifer Triverio; *Fun and Games*, *Gear + Gadgets*, Julie Cohen; *Lifestyles + Learning*, Melanie Berger; *Kid Raves*, Carol Ellison; *Ask Dr. PC®*, *Consumer Lab*, *Nuts + Bolts*, Sean Fulton; *Financial Adviser*, Mark Roberti; *Working At Home*, Jennifer Zaino; *On-line Connections*, *The Cyber Ace®*, John Eckhouse

LETTERS

U.S. Mail: Letters to the Editor
HomePC
600 Community Drive
Manhasset, NY 11030
Telephone: (516) 562-7673
Fax: (516) 562-7007
World Wide Web:
http://techweb.cmp.com/hpc/
Click on Contact HomePC
America Online:
Keyword: HomePC; click on Message Boards and then List Topics to find the Letters to the Editor folder.
From other on-line services:
Send e-mail to
homepc@aol.com

ASK DR. PC®

U.S. Mail: Ask Dr. PC
HomePC
600 Community Drive
Manhasset, NY 11030
Ask Dr. PC® telephone:
(800) DOC-IS-IN
Fax: (516) 562-7007
World Wide Web:
http://techweb.cmp.com/hpc/
Click on Contact HomePC
America Online:
Keyword: HomePC; click on Message Boards and then List Topics to find the Ask Dr. PC® folder.
From other on-line services:
Send e-mail to *drpc@aol.com*

CONSUMER WATCHDOG

U.S. Mail: Consumer Watchdog
HomePC
600 Community Drive
Manhasset, NY 11030
Fax: (516) 562-7007
E-mail: *lmagid@cmp.com*

CMP **CMP Media Inc.**

President/CEO **Michael S. Leeds**
President/Publishing **Kenneth D. Cron** President/International **Daniel H. Leeds**
Executive Vice President/CIO **Grace Monahan** Vice President/Chief Financial Officer **Joseph E. Sichler**
Vice President/Treasurer **Pearl Turner** Vice President/General Counsel **Robert D. Marafioti**
Senior Vice President **Jeffrey L. Strlef** *(Enterprise Computing Group, National Accounts)*
Vice Presidents/Group Publishers: **E. Drake Lundell** *(Personal Computing Group)*
Girish Mhatre *(OEM Group)* **John Russell** *(Channels Group)*
Vice President/Publishing Director **Scott Wolf** *(Personal Computing Group)*
Vice President/Corporate Communications **Barbara Kerbel**
Vice President/Manufacturing **Stephen J. Grande** Vice President/Customer Service **Georgette Ross**
Director International Licensing **David Tyler** Publishing Design Director **Joe McNeill**
Co-Chairpersons, Board of Directors **Gerard G. Leeds, Lilo J. Leeds**

Subscriber Information: To obtain information and/or order a subscription, call (800) 829-0119 or (904) 445-4662, ext. 817, or send e-mail to *hpc-order@palmcoastd.com*. Basic annual subscription rate: one year (12 issues) U.S. $21.97, two years (24 issues) U.S. $36.97. Canadian orders add U.S. $16 per year postage (includes GST). All other international orders add U.S. $18 per year postage. All foreign orders must be accompanied by payment in U.S. funds. Send address changes to *HomePC*, P.O. Box 420211, Palm Coast, FL 32142-0211. Please allow 4 to 6 weeks for changes/subscriptions to take effect.
For reprints (printed or electronic), call Keith A. Williams at (800) 682-4972 or (516) 733-6997.
For back issues and articles, call (516) 733-8546.

For more information about America Online, call (800) 827-6364. In addition to America Online, *HomePC* is available through a variety of other electronic services. For more information, call (516) 562-7405. Internet users can visit our World Wide Web home page at *http://techweb.cmp.com/hpc/*.

Printed in the U.S.A. Copyright© 1996 by CMP Media, a partnership. All rights reserved. *HomePC* is a trademark of CMP Communications Corp., and is used under license from the owner.

Before buying or installing any product mentioned in this publication, read your owner's manual or ask a salesperson to be sure it's compatible with your current home computer equipment. Neither CMP Communications Corp., CMP Media Inc., their affiliates, employees or freelancers are responsible for any injury or property damage resulting from the application of any information published by *HomePC*.

Audit Bureau of Circulations **Member**

Introducing

NETCOMplete!

When it comes to taking in the most of the INTERNET, nothing does it better than NETCOMplete. In one box you get all you need for the net. So CALL US TODAY AT 1-800-NETCOM-1.

CIRCLE READER SERVICE NUMBER 43

NETCOM

www.netcom.com

©1996 NETCOM, Inc. All rights reserved. All product and company names are the property of their respective owners.

AnthroCarts®!

AnthroCarts are *so* flexible. You have dozens of shapes and sizes to choose, plus over 50 accessories to configure your cart exactly the way *you* want.

And they have a Lifetime Warranty! Made of steel and high density particle board, these AnthroCarts are as tough as nails.

See them all in our catalog, then call us direct to order. We'll ship to you the very next business day!

Call for your free catalog:

800-325-3841

6:00 AM to 6:00 PM PST, M–F

ANTHRO®

Anthro Corporation®
Technology Furniture®
10450 SW Manhasset Dr.
Tualatin, OR 97062
Fax: 800-325-0045
E-mail: sales@anthro.com

Since 1984. Prices from $299. For a lower cost line for the home, ask for our SOHO catalog. GSA contract. Available for OEM applications. Anthro, AnthroCart and Technology Furniture are registered trademarks of Anthro.

HOMEPC

Publisher: Dan Schwartz
516-562-5750; Fax: 516-562-7665
dschwart@cmp.com

Associate Publisher/West: Gene Burns
415-525-4466; Fax: 415-525-4244
gburns@cmp.com

Associate Publisher/East: Pete Reckenbach
212-592-8436; Fax: 212-592-8443
pbeckenb@cmp.com

New York/Mid-Atlantic: Guy Zerega
212-592-8416; Fax: 212-592-8443
gzerega@cmp.com
Account Executive: Patricia Berg
516-562-7717; *pberg@cmp.com*

New York/Southeast: Michael Medwig
516-562-7138; Fax: 516-562-7665
mmedwig@cmp.com
Account Executive: Patricia Berg
516-562-7717; *pberg@cmp.com*

Northern California/Colorado: Carla Daiss
415-525-4465; Fax: 415-525-4244
cdaiss@cmp.com
Account Executive: Catherine Lukas
415-525-4390; *clukas@cmp.com*

Northern California/Arizona: Lauren Goldstein
415-525-4318; Fax: 415-525-4244
lgoldste@cmp.com

Southern California: Catherine Davenport
310-473-9641, ext. 3924; Fax: 310-477-3615
cdavenpo@cmp.com
Account Executive: Robbin Siegel
516-562-7173; Fax: 516-562-7665
rsiegel@cmp.com

New England/Eastern Canada: Gina Ciampa
617-487-7512; Fax: 617-487-7599
gciampa@cmp.com
Account Executive: Denise Foley
516-562-7939; *dfoley@cmp.com*

Midwest/Texas: Rick Burish
312-946-6623; Fax: 312-565-5943
rburish@cmp.com
Account Executive: Ed Rogers
516-562-7722; *erogers@cmp.com*

Northwest/Western Canada: Dennis Sanchez
206-869-8647; Fax: 206-869-9634
dsanchez@cmp.com
Account Executive: Catherine Lukas
415-525-4390; *clukas@cmp.com*

The HomePC Connection/Classified Advertising:
National Sales Manager: Patricia Mayer
Sales Representative: Jacqueline Cruz
516-562-7685; Fax: 516-562-7910
jcruz@cmp.com
Production Supervisor: Margaret Kelly
516-562-7280; Fax: 516-562-7910
mkelly@cmp.com

Customer Service/Display Advertising/ Space Reservations:
516-562-7661; Fax: 516-562-5196
Manager: Laura Piorkowski
lpiorkow@cmp.com
Senior Advertising Coordinator: Ann McCluskey
amcclusk@cmp.com

Customer Service/Subscriptions:
Customer Service Representative: Annie Marotta
amarotta@cmp.com

Executive Assistant: Judy Condon

Group Production Manager: James D. Pizzo
Production Manager: Marina Parnolo
Advertising Production Coordinator: Ruth Chester
Production Assistant: John Mass

Associate Circulation Director: Kathleen Shay
Newsstand Manager: Peter J. Birmingham
Business Manager: Ken Gallagher
Director of National Accounts: Thomas Rousseau
Research Associate: Linda Jurs
Marketing Manager: Mary Zagrobelny
Art Director/Promotion: Debbie Weinkauff

Personal Computing Group:

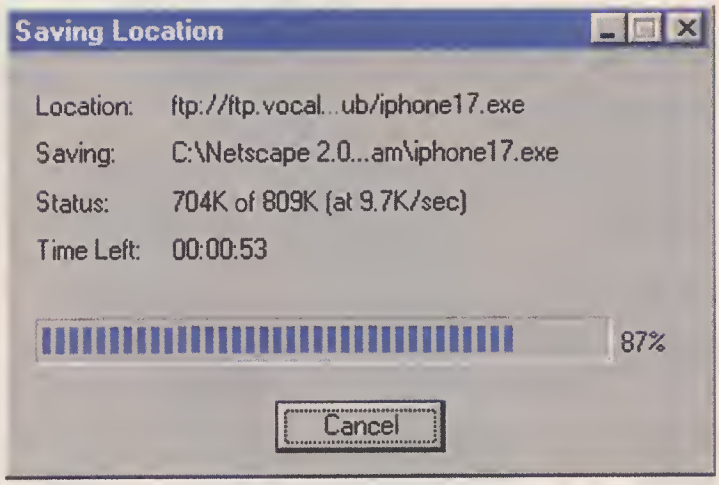
Vice President/Group Publisher:
E. Drake Lundell
Vice President/Publishing Director: Scott Wolf
General Manager: Harold Buckley
Director of New Media: Patricia Navone

Vice President/Customer Service: Georgette Ross
Vice President/Manufacturing: Steven J. Grande
Human Resources Manager: Irene Musumeci
Director, Product Development: Nancy Trespasz
Columnist & Strategic Adviser: Mark Stahlman

CMP

CMP Media Inc.
600 Community Drive
Manhasset, NY 11030
516-562-5000

President/CEO: Michael S. Leeds
President/Publishing: Kenneth D. Cron
President/International: Daniel H. Leeds
Executive Vice President: Grace Monahan
Vice President/Finance: Joseph E. Sichler
Vice President/Treasurer: Pearl Turner
Vice President/General Counsel:
Robert D. Marafioti
Co-Chairpersons, Board of Directors:
Gerard G. Leeds, Lilo J. Leeds



IN 53 SECONDS YOU CAN BE TALKING TO ANYONE IN THE WORLD. FREE.

www.vocaltec.com/demo16.htm

Download a FREE demo of the award-winning Internet Phone today! There's never been a better time to try this breakthrough software from VocalTec. It's fully cross-platform compatible for Mac and Windows. So if you have Internet access, a standard multimedia computer and Internet Phone software, you can have a real-time, full-duplex voice conversation with anyone, anywhere in the world, who has the same setup. And it's FREE, except for your regular Internet access charges. Hard to believe? Come see for yourself.

For more information on where you can get Internet Phone, call 201-768-9400, e-mail: info@vocaltec.com or stop by our Web site or one of the locations listed below.

PICK UP THE **INTERNET PHONE**

VocalTec, Internet Phone and Internet Phone Company are trademarks of VocalTec, Inc.

VOCALTEC

BYTE · PC MAGAZINE 1995 · HOMEPC bestbuys JUNE 1995

Incredible UNIVERSE · Babbage's · BEST BUY · COMPUSA · COMPUTER CITY · EGGHEAD SOFTWARE · software etc

CIRCLE READER SERVICE NUMBER 62

You've got a CD-ROM drive, a wavetable sound card and you've got computer speakers with the power and fidelity of a 1963 transistor radio.

You've got to get Yamaha YST™ Multimedia Speakers.

It doesn't matter if you're conquering virtual alien hordes or calming your nerves with a Vivaldi CD while balancing the check book.

Yamaha YST multimedia speakers release the stunning audio performance that's already right there in your computer.

Try playing an audio CD in your CD ROM drive to hear how your speakers really stack up. If you had Yamaha YST speakers you'd hear smooth, crisp, clean sound. And you'd have plenty of power–with ratings from 5 watts per speaker to 45 watts of total amplifier power.

Active Servo Technology

Thanks to Yamaha active servo technology the speakers, amplifier, and enclosure actually interact to deliver deep, tight, satisfying bass. The kind of bass that brings energy and excitement to music and computer games. And for the ultimate in bass power and performance you've got to have a subwoofer. For a complete satellite/subwoofer system choose the System 35 or System 45. Or add the MSW10 subwoofer to your existing speakers to bring them to life.

And if you look at the bottom of this page, you'll find a computer retailer who's got Yamaha multimedia speakers. You've got to go get them.

YAMAHA®

THE WAY YOUR COMPUTER SHOULD SOUND.

YST-M7 Multimedia Speakers

YST-MSW10 Sub-woofer

System 45 Multimedia Speakers

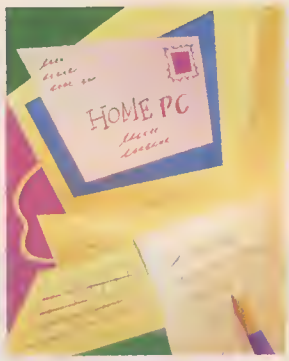
Yamaha multimedia speakers MSRP from $59.95 - $249.95 at these fine retailers.

BEST BUY · COMPUTER City · COMPUSA · EGGHEAD · Fry's ELECTRONICS · Incredible UNIVERSE

To receive product literature, call (800) 823-6414 Ext. 506. ©1996 Yamaha Corporation of America, Computer Related Products, 6600 Orangethorpe Avenue, Buena Park, CA 90620. All rights reserved. Yamaha, YST, and the Yamaha logo are registered trademarks of Yamaha Corporation of America.

CIRCLE READER SERVICE NUMBER 64

letters



Teacher's pet project

As an educator, I was thrilled to read about *HomePC*'s support of the effort to equip schools with computers (From the Editor, May, page 15). What an idea—the Internet in each classroom! The ramifications would be phenomenal. I'm all for the White House effort and NET 1 [the National Education Technology Initiative] bringing the Internet to us.

I have a Mac in my classroom, but it doesn't have a modem. We also have a Mac lab at our school, and that's a nice plus—but those computers aren't equipped with modems, either. We do have Internet access on a computer that resides in the school library, but, as you'd expect, lots of kids want to use it and many don't get the chance.

I can't imagine how excited our students would be if the Mac lab could be set up to access the Internet—the possibilities of discovery would be endless.

Keith Mezger
Desert Winds Elementary School
Phoenix, Ariz.
via the Internet

Broken promise?

For nine years, I've managed a computer repair shop for one of the school districts in Florida. It has been my experience that there is a paradox in the purchase of computers. At today's prices, schools can purchase several new computers for the price of one unit just a few years ago. In fact, schools are purchasing computers at a very high rate, but they don't seem to consider that these machines will need repairs in the future. Meanwhile, repair costs have escalated in the past few years to the point that we can't continue providing the same service to the schools without sacrificing something.

Schools need to be aware not only of the quantity of computers they purchase, but of the quality. How are they investing their dollars in new technology? Will a given computer brand be here today and gone tomorrow? When it breaks down, will it be fixable or a throw-away item? Have they allotted funds for training, technical support and upgrades down the road?

The people making the computer purchasing decisions in schools lack the training, expertise and savvy to know which machines will need the least maintenance and be the most economical to keep up—in other words, which ones will deliver the biggest bang for the buck.

Tony Urbizu
Palm Bay, Fla.
via the Internet

Out of Print Shop?

I love your magazine and really appreciate the reviews that involve people I can relate to. I am much more interested in their opinions on products and services than those of a computer techno-wizard.

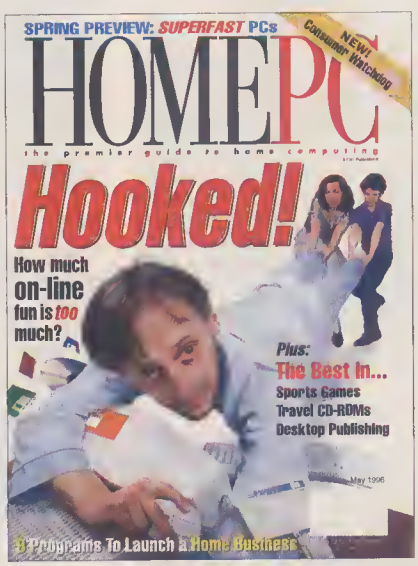
I have one question, though: In your review of desktop publishing programs (Consumer Lab, May, page 107), why wasn't Broderbund's Print Shop Deluxe mentioned? It's been on the best-seller charts forever, and for its simplicity and its price, I think it's one heck of a program. I don't understand how it could have been left out of your lineup.

Mark Titschinger
Phoenix, Ariz.

Editor's reply: *For our desktop publishing Consumer Lab, we included only those best-selling programs that are full-featured, designed for producing newsletters and other complicated desktop publishing projects. Print Shop Deluxe is more of a crafts-oriented program, intended for making banners, posters, cards and so on. Although theoretically it could be used to create a newsletter, it's really not intended for that purpose, and therefore doesn't fall into the same category as the other software our testers reviewed.*

Passions unchecked?

I was glad to see your article addressing compulsive/addictive or emotionally driven use of the Internet and computer services in general ("Fatal Distraction?" May, page 66). It is clear that the computer, as with any pleasurable and distracting experience we are offered, can become a means of avoiding issues and relationships, and not engaging in more productive coping skills.



I was surprised, however, that there was no mention of sexual activity on the Net as part of the addictive or habitual behavior. Being a licensed psychotherapist and addiction specialist focused on addictive or compulsive sexual behaviors, I know there are staggering numbers of men and some women who have traded in their addiction to pornography, phone sex or other behaviors for sexual conversation and the downloading

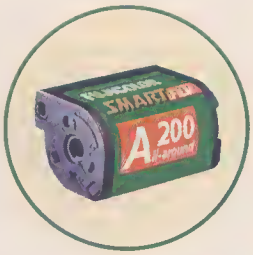
Logo art by Coco Masuda

Photography so totally new, it will make

Introducing the Fujifilm Advanced Photo System.

Some people call it "a major advance in photography." Everyone else just says it's a lot of fun. **Drop-in loading.** Your days of worrying about loading film are over. Just drop in Fujicolor Smart Film™ and shoot. **Prints in three sizes.** You can shoot a classic 4 x 6, high definition 4 x 7, or panorama 4 x 10 prints. Or when you order reprints, you can choose to have any size picture made from any shot. **Smart Index Print** (see above). When your film comes back from being processed, you'll also get one of these. That way, ordering enlargements and reprints is easy. **Smart Film™ in three**

ou want to take more pictures.



speeds. Because great pictures don't always wait for a sunny day to present themselves, and sometimes they even happen indoors, you can load your camera with either ISO 100, 200 or 400. **Protective negative storage.** To protect your negatives for years to come, your negatives are returned in the Fujifilm cartridge. How do you know which shots are inside? Just look at the cartridge number and match it with the number on the Smart Index Print. It couldn't be easier. To learn more, http://www.fujifilm.com.

©1996 FUJI PHOTO FILM U.S.A., INC. Smart Film is a trademark of Fuji Photo Film U.S.A., Inc.

ADVANCED PHOTO SYSTEM

FUJIFILM

ADVANCED PHOTO SYSTEM

A new way of seeing things.

of erotic material made available on the Internet. And then there are the newcomers, who have just begun to act out sexually through the on-line world. I would be extremely surprised if you had not run into such types in your research. In my experience, the most compulsive and driven (up till 5 a.m. nightly) Net surfers are out there looking for distraction through sexual arousal.

Robert Weiss, LCSW, CAS
Clinical Director
The Sexual Recovery Institute
Los Angeles, Calif.

A prize pupil

Thank you so much for selecting me as the second-place winner in the Middle School category in your Computer Learning Month essay contest [to meet the grand-prize winners, see page 101]. I really enjoyed participating.

HomePC is a great help to me. I was having trouble with my Web browser setup recently, but your May Nuts + Bolts section (page 123) solved my problems.

do-it-yourself
nuts + bolts STEP-BY-STEP TIPS
Setting up a Web connection in Windows 95
Before you begin...

Once again, thank you for selecting my entry as a winner in your contest. I'm looking forward to the wonderful prizes—and the next issue of *HomePC*.

John Ruda
Dudley, Mass.
via the Internet

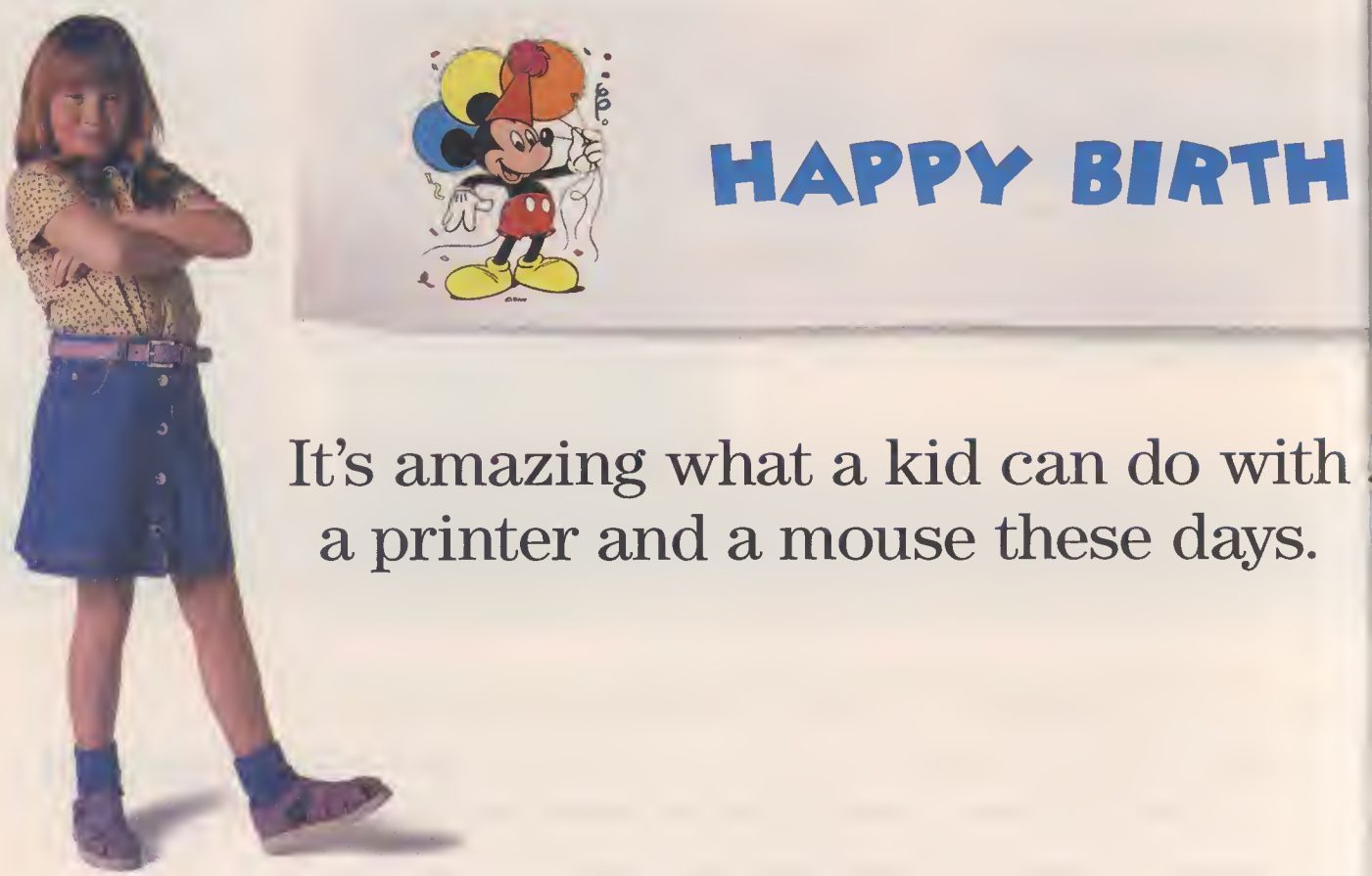
Contented

HomePC is the most straightforward, easy-to-understand computer magazine I've ever read. I particularly like your Nuts + Bolts section for its step-by-step illustrated instructions, as well as your Ask Dr. PC column. I feverishly read the entire contents of each issue when I see it in my mailbox. Keep up the good work!

Carrie Mittelstadt
Edmonton, Alberta
via America Online

Daughter's day

Hi! I'm 10 years old, and writing in response to your story called "A Chat Room of One's Own:



on-line connections

EXPLORING THE INFORMATION HIGHWAY

A chat room of one's own: Women in cyberspace

by deedee pina

Women in Cyberspace" (On-line Connections, May, page 143). Even though I'm just a kid, there were a couple of sites you mentioned that I will try out (WomenSpace and FeMiNa). Thank you for that article. Oh, yeah, in case you're wondering why I read *HomePC*, it's because I love surfing the Web. There are always new sites to look for. And it's my dad's magazine.

Ariane Chizinsky
Beverly Farms, Mass.
via CompuServe

The fix and the picks

Thank you, *HomePC*! In each issue of your magazine I find solutions to my Windows 95 problems, as well as a whole month's worth of Internet addresses to check out and explore. I really appreciate your tips.

Valerie Boal
New Liskeard, Ontario
via the Internet

For the record

MathSoft's StudyWorks (see "Editors' Choice Awards: The Perfect Home Software Library," June, page 70) has been split into two separate products, StudyWorks for Math and StudyWorks for Science; each should be available in stores for less than $40.

How to contact us:

We want to hear from you! Send your letters to:

Letters to the Editor
HomePC
600 Community Drive
Manhasset, NY 11030

You can also fax your comments to us at (516) 562-7007, or send electronic mail to HomePC *on America Online or to* homepc@aol.com *using any other on-line service.*

Please include your name, address and phone number. All correspondence becomes the property of HomePC. *Letters may be edited for length and content, and may be republished in any medium. Due to the volume of mail received, we regret that we may not be able to answer each letter personally.*

DAY, DAD! LOVE, AMY

Introducing the HP DeskJet 682C, now with Disney software.

Imagine what you or your child could do with the new Hewlett-Packard DeskJet 682C printer. In addition to cards and labels, the DeskJet 682C printer has a new feature that lets you create one-piece banners. Buy one now and you'll receive Disney Interactive's Mickey & Friends Print Studio CD-ROM that lets your family create all kinds of fun projects. Best of all, with HP's exclusive RealLife Imaging System, you get the most vivid colors and the sharpest blacks without the need for any special paper.

HP Home Printers.

$329

Estimated U.S. retail price. Actual price may vary.

HEWLETT® PACKARD

For best results, use genuine HP supplies and accessories. For more information, see our ad on the World Wide Web at http://www.hp.com/info/mouse ©1996 Hewlett-Packard Company ©Disney PE12596

EUROPEAN ART COMES TO THE SCREEN, WITHOUT THOSE ANNOYING SUBTITLES.

From the cantinent that gave us museums and luxury autamabiles came their cambined spiritual equivalent: Nakia manitars. Nakia is already a hausehald name (and cafe and affice name taa) thraughaut Eurape. And naw Nakia manitars are quickly winning the hearts and eyes af Americans taa.

The Eurapean passian far beauty is expressed in the magnificent clarity af the screens and the saathing refresh rates.* The Nardic absessian with technical perfectian is embadied in the variety and sensitivity af Nakia's cantrals and campanents. And the cantinental lust far life and gaad health is evident in the extraardinary TCO-campliant emissians cantrals Nakia invented.

Add ta this the sheer elegance af the taaling and Plug 'N' Play cannectivity under Windaws® 95. A Nakia manitar is mare than electranics. It's art. But, it's an avant garde that's quite easy ta appreciate. Especially when it makes thase darn little subtitles sa much easier far yau ta read.

Nokia is the leading brand of monitors in Europe, and an engineering standard for the world

Far mare infarmatian call

1.800.BY NOKIA.

Dept. Code: N81

NOKIA
MONITORS

*When used with an appropriate graphics card. Models are continuously upgraded. Size of CRT measured diagonally. Actual viewing size is slightly less. Manufactured and designed in Finland in an ISO 9001 approved environment. ©1996 Nokia Display Products, Inc. Multigraph, Valuegraph, MicraEmission and FullScreen are trademarks of Nokia Display Products, Inc. E-Mail: bynakia@aol.com. Prices and specifications subject to change without notice. The Energy Star emblem does not represent EPA endorsement of any product or service. All other trademarks are the sole property of their respective companies.

CIRCLE READER SERVICE NUMBER 44

ask dr. pc®

EDITED BY SEAN FULTON

Do I lose program groups in Win 95?

Q I'm thinking about upgrading to Windows 95, but I'm comfortable accessing my program icons in groups on the desktop, the way it's done in Windows 3.1. Would I still be able to work that way in Windows 95?

A You ain't seen nothin' yet: Windows 95 lets you place individual program icons right on your desktop by creating "shortcuts"; clicking on a shortcut icon allows you to launch a program without opening any program groups or folders.

To create a shortcut, click the secondary mouse button anywhere on the Windows 95 desktop to call up a menu of options. Click on New, then on Shortcut; the Create Shortcut window will open. You can either go to the Command line at the top and type in the full path name of the executable file (the *.exe* file that launches the program) the icon will represent, or you can click on the Browse button to locate the appropriate program folder, highlight the folder and click on Open, then highlight the executable file and click on Open again; this automatically puts the full path name on the Command line of the Create Shortcut window. Click on Next, give the icon a name (which will label the icon on the screen), and click on Finish. The program now has its own icon; double-click on it to launch it directly from the desktop.

Another way to create a shortcut is to open Windows Explorer, find the executable file and highlight it, then press Ctrl+Shift and drag the file to the desktop.

To delete a shortcut icon, simply highlight it and press the Delete key. (Remember that this deletes only the icon from your desktop, not the program itself.)

Windows 95 also lets you create shortcuts to folders on the desktop. When double-clicked, a folder icon will open to reveal any programs or files contained within. The View pull-down menu offers an option to enlarge the icons inside a folder, resulting in a look that's quite similar to your program groups in Windows 3.1.

A Myst-erious error

Q I recently installed Myst on a Windows 95 PC. When I try to run the game, I see an error message that says "Your program is making an invalid dynamic link call to a .DLL file." How do I fix this?

A According to the tech-support staff at Broderbund Software, maker of Myst, that message means you have an older version of the game, and some other program on your hard drive is getting in its way.

Myst uses the QuickTime video format to play some of its segments. Your problem is that the version of QuickTime installed with your copy of Myst differs from the version the game is trying to use; odds are Myst has found a version of QuickTime that came with another program on your PC. The easiest solution is to contact Broderbund at (415) 382-4700 for a Windows 95 upgrade of Myst, which will eliminate this problem; the upgrade will cost you $15, plus $2.50 for shipping and handling.

If you'd rather not buy the upgrade, another fix is to delete the version of QuickTime that's in the Myst directory (you'll be deleting all files in that directory that begin with the letter *q*).

Go to the DOS prompt, switch to the directory in which Myst is installed (*C:\MYST*, for example), and type *del q*.*, then hit Enter. Re-

Illustrations by Chip Wass

boot your PC and the Myst-ery should be solved.

No CD music aloud

Q When I'm using Windows 3.11, I can't hear my audio CDs through my PC's speakers, but I do hear them through headphones plugged into the CD-ROM drive. When I play them in DOS, the sound comes out of the speakers as it should. What's wrong?

A This is an easy one: You need a Windows 3.11 driver for your sound card. Check to see if that driver was included with your sound card, or contact

the card's manufacturer to find out how to obtain it on-line or by U.S. mail. (If your sound card was supplied as part of your system when you bought it and you're not sure of the card's manufacturer, contact your PC maker to obtain the proper driver.)

Once you have the driver, simply follow the instructions to install it and then reboot. The audio CD sound should ring through the Windows loud and clear.

Get me out of this .log jam!

Q Every time I have a General Protection Fault, my Dr. Watson program tells me to open a file called *drwatson.log*. But when I double-click on it in File Manager, I get the error message that says "No application is associated with this file." How come?

A Your File Manager can't deal with the *drwatson.log* file because it doesn't understand what the *.log* file extension means. Since *.log* normally implies an ASCII text file, you can simply "associate" the *.log* file extension with a text-editing program, such as Windows 3.x's Notepad. Open File Manager, click on the *drwatson.log* file, and select Associate from the pull-down File menu; you'll see a list of programs with which you can associate any files that end in *.log*. Select Notepad, and whenever you double-click on a file ending in *.log*, the PC will automatically fire up Notepad for you to be able to read and edit the file.

If you decide at some point to upgrade to Windows 95 and encounter this problem again, the file-association procedure is slightly different. First, click on My Computer, then pull down the View menu and

select Options. In the window that opens, click on the File Types tab, then click on New Type.

You'll see three text boxes in the upper portion of this window. In the first one, labeled Description of Type, enter "Log file." In the second box, labeled Associated Extension, type **.log** (which represents any file ending in *.log* along with any characters after it—say, *filename.log1*). Near the bottom of this window, under the Actions box, click on the New button. In the Action text box at the top of the next window, type "Edit document"; in the text box directly below it, type *C:\windows\notepad.exe*. (The first box describes what should happen when you double-click on a file ending with *.log*; the other tells Win 95 the command to run.) Click on OK or Close in all remaining windows.

A SIMM-ple equation?

Q I recently purchased a 486 motherboard that has four 30-pin and two 72-pin SIMM sockets. Will I have to fill up the 30-pin sockets

Produced by
interWeave Entertainment

Dr. Elizabeth Duran

The colleague and lover of the late Dr. Everett Cussler, this beautiful and brilliant scientist has it all. Unfortunately, that's why somebody wants her dead.

Peter Cussler

Everett's scheming failure of a son. His resentment toward Elizabeth knows no bounds.

Rachel Cussler

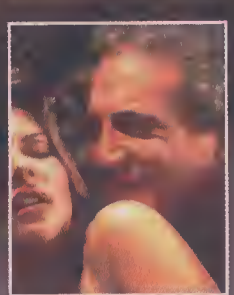
Everett's daughter and protégé, not to mention a sociopath with a taste for designer aphrodisiacs.

Candace Cussler

Driven to the brink by her husband Peter's impotence. Her desperate hunger for passion leads her to the bed of another.

Sylvio Donato

A longtime friend and financial advisor to the Cussler family. His intentions are not entirely honorable.



Colin Meyers

An ambitious and arrogant lawyer, he's drawn into Rachel's life of sex and drugs. But his real addiction is to Candace.

Sex. Murder.
And audience participation.

Watching is not enough...

PHILIPS

http://www.philipsvoyeur.com

MATURE M AGES 17+

For PC and Mac CD-ROM

©1996 Philips Media, Inc.

before I can move on to the 72s?

A Yes, and the explanation gets a bit tricky, since it involves some math. Thirty-pin SIMMs (single in-line memory modules) have an 8-bit data path, and 72-pin SIMMs have a 32-bit data path; thus, a 30-pin SIMM can provide only 8 bits of information per access, while a 72-pin SIMM can provide 32 bits per access. This restriction applies regardless of the actual amount of memory, or RAM, on the SIMM—1 megabyte, 4 MB or more.

A 486-based system normally will have a 32-bit data path between the CPU and memory; in other words, for a normal memory access to take place, the CPU will request 32 bits of information, and the memory must provide the entire 32 bits. But obviously one 8-bit SIMM can't provide 32 bits of information, so a PC motherboard allows a set of SIMMs to be grouped into a "bank," which will respond together to fulfill a single memory request. These banks are numbered sequentially, beginning with 0; the PC will always try to access Bank 0 first, then Bank 1, Bank 2 and so on.

Since a bank of four 8-bit SIMMs will produce a 32-bit data value, all four 30-pin SIMM sockets must be filled in order to satisfy the CPU's 32-bit request. And assuming your 30-pin bank is Bank 0, that bank must be filled before going on to another bank. Also, note that each SIMM in that bank must have the same amount of RAM; if you try to combine different SIMM values in one bank of sockets, your system won't work.

The jewels of denial

Q Last summer I played a game called Jewelbox on a friend's Macintosh, but I haven't been able to find it in a Windows version. Can you give me any leads?

A Sorry to disappoint you, but Varcon Systems' Jewelbox—a puzzle game that calls for quick thinking and sharp reflexes to line up falling jewels in rows of like colors—is available only for the Macintosh. The good news is that there are loads of puzzle games just like it that are designed for the PC.

By far the most popular of these geometric brain-teasers is Spectrum HoloByte's Tetris, which lets you rotate and position falling geometric shapes to form solid rows. Some recent variations on the theme are TriTryst (Virgin Interactive), Qwirks (Spectrum HoloByte) and Zoop (Viacom New Media). See the story in our March issue called "Fast Fun!" (page 100) for more details on these three games.

In addition, there are many shareware programs available for the PC that mimic games such as Jewelbox and Tetris. A keyword search on the World Wide Web site *http://www.shareware.com/* will point you to some of them. (Enter "Tetris," for example, in the Search Word field, and "game" in the Optional Second Word field.)

Driver isn't up to speed

Q I have a new Okidata OL600e printer to go with my Windows 95 computer, but the driver that came with it is for Windows 3.1. Where can I find a driver for Windows 95?

A At press time, Okidata's Windows 95 driver for the OL600e laser printer was scheduled to be released in May. The initial version of the driver will allow sharper 600-dpi printing; a subsequent release will add Plug-and-Play support, as well as Print Status Monitor software that will provide alerts to a variety of events, such as when a job is finished or if there's a paper jam.

Until you're able to obtain the new Okidata driver, you can use the HP LaserJet IIP Windows 95 driver (but you won't get the 600-dpi resolution that will be provided by the forthcoming Okidata driver). If you need to use any of the Okidata-specific print options, try Okidata's OL400e Windows 95 driver, *400ewn95.exe*. You can download the OL400e driver, or

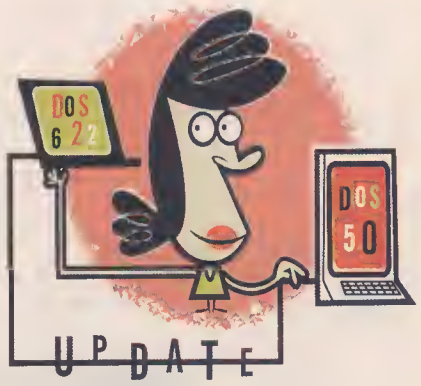
the OL600e driver when it becomes available, from Okidata's Web site (*http://www.okidata.com/*) or its bulletin board (609-234-5344), or from its forum on CompuServe (Go PCHW Library #2); you can also call Okidata support (800-OKIDATA) to request a copy of the driver on a floppy disk.

It's OK to use a DOS copy, right?

Q I run DOS 5.0 on my desktop PC and DOS 6.22 on my laptop. I want to defrag my desktop's hard drive, but DOS 5.0 doesn't include a defragging utility. Can I transfer the DOS from my laptop to my desktop PC?

A Sorry, but it's against the law. If you want to take advantage of the additional features of DOS 6.22 on your desktop computer, then you need to purchase an upgrade. Copying the software from your other computer breaches Microsoft's copyright on the program.

With any software, an upgrade from one version to another is almost always reasonably priced—in this case it's about $30—and fully supported; you'll be sure to get the very latest version of the software, as well as any new manuals that have been published.



Granted, it's not free, but it's still the right thing to do. •

Dr. PC was assisted this month by Andy Feibus, Michele K. Hugelmeyer and Chris Oggerino.

Do you have a question for Dr. PC? You can mail it to Ask Dr. PC, HomePC, *600 Community Drive, Manhasset, NY 11030; phone it in to 800-DOC-IS-IN; fax it to (516) 562-7007; or post it to the doctor at* HomePC *on America Online.*

©1994 EDF

Buy recycled.

It would mean the world to them.

Recycling keeps working to protect their future when you buy products made from recycled materials. For a free brochure, write *Buy Recycled*, Environmental Defense Fund, 257 Park Avenue South, New York, NY 10010, or call 1-800-CALL-EDF.

Ad Council EPA ENVIRONMENTAL DEFENSE FUND EDF

You can drive it in your House
You can drive it with a Mouse
You can drive it in your Socks
You can drive it eating Lox
You can drive it Here or There
You can drive it Anywhere

The 1996 TOYOTA CD-ROM

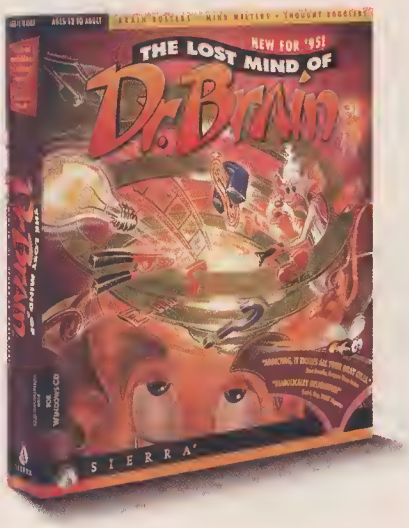
Think of it as a portable showroom. You provide the computer. It follows. Every Toyota Car, Truck, SUV, RAV4 or Van. Specifications. Dealer locations. It's got it. Virtually explore the models in any color, from any angle, inside and out. No hurry. No hassle. PC or Mac.® For your free disc, just call **1-800-GO-TOYOTA**, or order on-line at **http://www.toyota.com/horn/media.** Go ahead — take it for a spin.

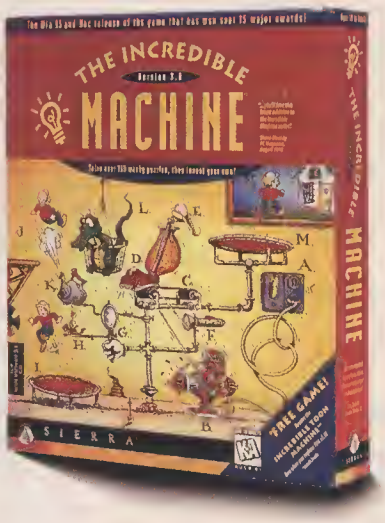
TOYOTA
I love what you do for me

©1996 Toyota Motor Sales, U.S.A., Inc.
Buckle Up! Do it for those who love you.

E READER SERVICE NUMBER 59

Two outrageous games.
Thousands of brain-busting puzzles.
Unlimited challenge.
Twenty-four major awards.





...and countless endorsements from the experts.

"Consumer Reports Magazine rated Dr. Brain, 'No. 1 Children's Software,' 12/95 edition. . ."
Huntington Herald Press

★★★★★(highest rating)
Children's Software Revue

"Best Software of 1996"
Category: Home Learning for Adolescents
Software Publishers Association

"Child's Best" Software
Child Magazine

"Best Home Learning" Award
Technology & Learning

"The Incredible Machine knocked Family PC's testing scales right off the charts—it was the highest rated title all year."
Family Fun

★★★★★(highest rating)
Children's Software Revue

"One of the most ingenious games to come along since computer games were invented."
Parent Life

"Child's Best" Software
Child Magazine

Puzzle Game of the Year
Computer Gaming World

"Totally blew my mind."
Nick, age 12

Add it all up, and these wacky mind-twisters rise to the top of your family's "must-have" list. Get ***The Lost Mind of Dr. Broin***™ and ***The Incredible Machine***™ at your local retailer, or call **1.800.757.7707**. Order *The Incredible Machine* now and you'll also get *Newsweek's* "Best Kid's Software of the Year" winner, ***The Incredible Toon Mochine***™ — **FREE**, with registration! Download a free interactive demo of *The Incredible Machine* at Sierra's website: **http://www.sierra.com**.

©1996 Sierra On-Line, Inc. ® and/or ™ designate trademarks of, or licensed to Sierra On-Line, Inc. All rights reserved.

SIERRA®

CIRCLE READER SERVICE NUMBER 51

consumer watchdog

THE PC SHOPPER'S ACTION LINE

BY LAWRENCE J. MAGID

In November I responded to a promotional mailing from the Internet Business Bureau (IBB) that promised a complete Web page design, unlimited Web access via a local access number, unlimited e-mail, Eudora e-mail software, Netscape browser software and support, all for $198 for six months.

I wanted Web service—and now I'm stuck

Nearly six months later, my Web page hasn't been posted, nor have I received anything else I'm owed—including the refund I was promised after considerable prodding. My latest calls, e-mail and letters have gone unreturned.

Melissa Oefelein
New York, NY

First, be aware that the company has changed both its name and its marketing pitch. The Council of Better Business Bureaus was concerned that IBB was "likely to confuse the public and jeopardize the BBB's long-held reputation" because IBB "advertised consumer protection and business-reliability reporting services that purported to be virtually identical to services provided by the Council and by Better Business Bureaus."

At press time, the company—now called Internet Business Broadcasters—was promoting an "Internet Incubator Program." It offers to advertise a product or service free for six months ("Get a free professionally created Web page packaged with a dynamic Internet marketing 'blitz' that includes a hi traffic mall with over 40,000 visitors a day, 21 newsgroups, 12 search engines, direct e-mail to over 120,000 business/consumers!!!").

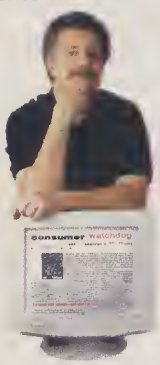
I contacted several people whose Web pages were created by IBB. A couple said they felt the company had treated them fairly, but a number of others were very unhappy. JulieAnn Charest of Burlington, Mass., says it took six weeks before her page was operational, and that the "initial page had multiple typographical errors. My attempts to get them corrected were ignored completely or replied to abruptly...." IBB eventually corrected the typos, she says, but she's still disappointed with the overall quality of IBB's work. (Indeed, many of the pages I've seen at the IBB site appear to be amateurish in their design—they don't take advantage of the latest multimedia technology, for instance, and they contain many typos.)

Another IBB customer, who also feels the company hasn't fulfilled its promises, says, "We have asked our bank to recover what we charged to our credit card." And several people I spoke with said the company failed to make good on its claim to create a Web site the day membership was "approved"—a few said it took weeks before their sites went live—and no one I spoke with had received any business they could trace to their ad in the IBB "mall" (but in all fairness, IBB can't be held responsible for that). I also checked with the Better Business Bureau office that serves Southern California, where IBB is located, and found that the company has an "Unsatisfactory" rating based on customer complaints that were never resolved.

David Mann, operations director of IBB, told me: "We happen to be one of the largest business-to-business sites on the Net, and we may have a customer out there who might be disgruntled.... We have people who will not see eye to eye [with us], and in certain situations the customer is not always right.

"We feel strongly that we are providing a service that's well worth the money we charge," he added.

Mann explained that the company creates a URL (a Web site address) with a four-line description for every member immediately when he or she joins, and builds the full site soon after the member supplies text and graphics. He also claimed that many IBB customers had generated substantial business as a result of their ads, but said successful customers are often reluctant to tell others how well they're doing. Of course, that claim is impossible to verify independently, as is the claim that the IBB site gets 40,000 visitors a day—so far there are no reliable objective rating services to verify the number of visitors to a Web site.



The company promised you would receive your refund. Keep us posted.

Mann acknowledged that IBB was unable to fill your order for Internet access software, explaining that the company had stopped offering that service. He also promised you would receive your refund. Keep us posted.

It's easy to understand why home business own-

Illustration by Randy Lyhus; photograph by Alan Blaustein

ers are attracted to IBB's promotion; $200 is a reasonable price for the services IBB promises. But if you want to reach people inexpensively on the Web, you may do well to consider trying to create your own page before paying someone else; it's relatively easy (see "Setting Your Sites on the Web" in the January issue of *HomePC*).

If you choose to use a service, look at the pages the company has created for other clients first, and be sure they meet your standards.

If you were burned by a company's upgrade schedule, you may qualify for a credit.

Down on upgrades

Several months ago I responded to an offer from Starfish Software to upgrade to Sidekick 2.0. I was pleased with the product, but almost immediately after I upgraded, the company published Sidekick 95. Had I known a Windows 95 version was in the works, I wouldn't have bought Sidekick 2.0. Is this a ploy to get me to buy two versions?

Donald Hawley
Kansas City, Mo.

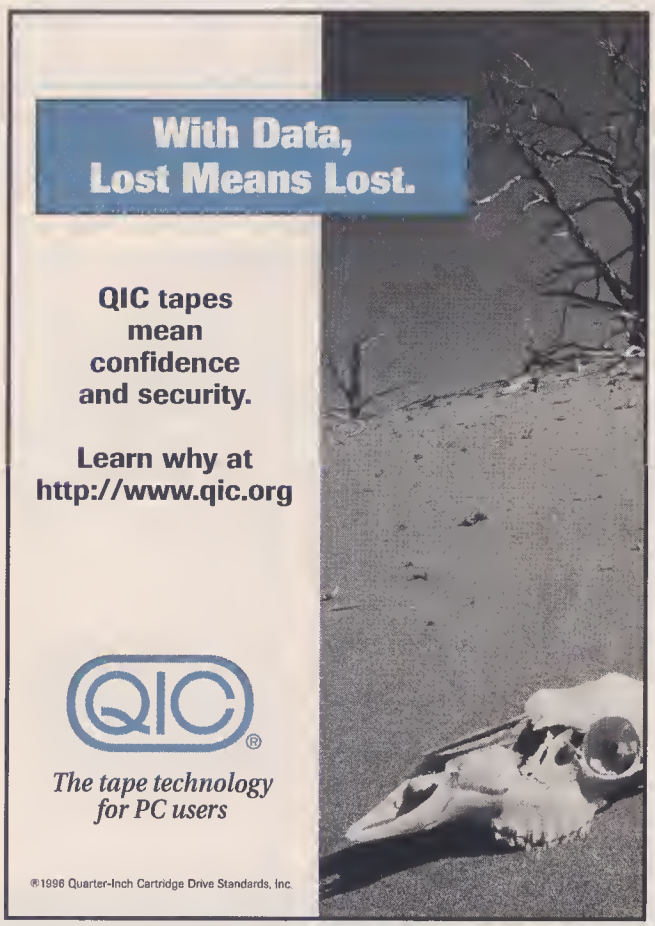
I discussed your letter with Starfish chairman Philippe Kahn. Sidekick 2.0, designed for Windows 3.1, runs on both operating systems; Sidekick 95 runs only with Windows 95 and includes features specific to it.

Starfish offers an unconditional 90-day money-back guarantee on all its products; had you called Starfish's customer service department or contacted the company through its Web page (*http://www.starfishsoftware.com*), you'd have been credited for the price of Sidekick 2.0 when ordering Sidekick 95. In the meantime, Kahn has agreed to send you a free copy of Sidekick 95.

With new versions of software appearing left and right, keep in mind that most software companies have similar upgrade pricing policies; contact the manufacturer before assuming you got burned. •

Lawrence J. Magid is a syndicated columnist for the Los Angeles Times. *Visit him at* http://techweb.cmp.com/gurus/magid/magid.htm *and* http://www.larrysworld.com *on the World Wide Web.*

Send your service-related questions to Consumer Watchdog, HomePC, *600 Community Drive, Manhasset, NY 11030; fax them to 516-562-7007; or e-mail them to* lmagid@cmp.com. *Consumer Watchdog will make reasonable attempts to contact the companies reported on in this column.*



"YOUR FREE BULLETIN BOARD SYSTEM KNOCKED MY SOCKS OFF"

We're not surprised. When people discover that our Consumer Information Catalog and more than 250 federal publications are online, they're so thrilled their toes tingle.

Use your communications software to dial **(202) 208-7679**. Or, e-mail the message "SEND INFO" to cic.info@pueblo.gsa.gov for Internet directions.

A public service of this publication and the Consumer Information Center of the U.S. General Services Administration

CIRCLE READER SERVICE NUMBER 48

Introducing...

$39.95* EACH PACK

COREL SUPER TEN SERIES

Each pack includes ten great titles at one low price!

From Corel®, the world leader in Windows® graphics software.

The Corel® Super Ten Series—bringing you the hottest titles from our best-selling Corel® CD HOME and Corel® Professional Photos on CD-ROM multimedia lines.

INDIVIDUAL COREL® CD HOME TITLES ALSO SOLD SEPARATELY
$19.95*

COREL SUPERTEN
KIDS ENTERTAINMENT PACK

Inside the Corel® Super Ten Kids Entertainment Pack there's a whole cast of wacky cartoon characters and fascinating facts just waiting to be discovered. Keeping your child entertained and enlightened has never been easier—or more fun! For kids ages 3 to 14.

COREL SUPERTEN
ENTERTAINMENT AND REFERENCE PACK

There's something for everyone in the Corel® Super Ten Entertainment and Reference Pack. So whether you want to check out a movie, browse the classics or surf the Net, this super-value pack adds up to an unbeatable home entertainment and reference resource.

COREL SUPERTEN
ROYALTY-FREE HIGH-RESOLUTION ANIMALS PHOTO PACK

The Corel® Super Ten Animals Pack lets you explore the beauty and majesty of the animal kingdom from the comfort of your desktop. Featuring 1,000 royalty-free, high-resolution photos in stunning color, it's the perfect screen saver and photo library pack for animal lovers everywhere.

COREL SUPERTEN
ROYALTY-FREE HIGH-RESOLUTION SELECT PHOTO PACK

Imagine always having the perfect photo right at your fingertips. The Corel® Super Ten Select Pack offers a truly unique selection of 1,000 best-selling, royalty-free, high-resolution images in one value-packed box. Now you can have a different screen saver every day of the year!

COREL SUPERTEN
ROYALTY-FREE HIGH-RESOLUTION PEOPLE PHOTO PACK

Ranging from modern-day fashion models to ancient lost tribes, the Corel® Super Ten People Pack showcases the fascinating diversity of the human race. This collection of 1,000 royalty-free, high-resolution photos offers a convenient photo library for a wide variety of presentation needs.

COREL SUPERTEN
ROYALTY-FREE HIGH-RESOLUTION ART PHOTO PACK

You will be captivated by the Corel® Super Ten Art Photo Pack's memorable compilation of 1,000 royalty-free, high-resolution photos—perfect for use in ads, brochures, presentations and more. It's like having your own art gallery on CD-ROM!

INDIVIDUAL PHOTO CD TITLES ALSO SOLD SEPARATELY
$19.95*

Enter the Corel® $3,000,000 World Design Contest! (September '95 to July '96)
To receive a faxed copy of the contest rules and an entry form, please call: 1-613-728-0826, ext. 3080, Document # 1125. To leave a message: 1-613-728-0826, ext. 81609. To send a fax: 1-613-728-2891.

PC Connection®
1-800-800-4656

KUR-0207-US

*US$ plus applicable taxes.

http://www.corel.com
Call now for faxed literature!
1-613-728-0826 ext. 3080
Document # 1040

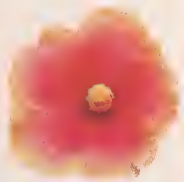
Corel is a registered trademark of Corel Corporation. All-Movie Guide is a trademark of Matrix Software Inc. Bernard of Hollywood's is a trademark of Renaissance Roads Productions, Inc. and is used under license. Blue Tortoise, Green Bear, Red Rhino and Yellow Hippo are trademarks of Alan Rogers. Herman is a registered trademark of Jim Unger. Nikolai's Trains and NN 'n N Toy Makers are trademarks of I. Hoffman + Associates Inc. Barron's is a trademark of Barron's Educational Series, Inc. Windows is a registered trademark of Microsoft Corporation. Macintosh is a registered trademark of Apple Computer Inc. All product and company names are trademarks or registered trademarks of their respective companies.

You get two weeks of vacation a

How do you know where to go and what to see on your vacation? Travel the Internet first.

The Internet is your passport to anywhere in the world. And the Pentium® processor makes the journey memorable with sharper graphics, smoother video, and more lifelike 3-D animation.

Visit *Virtually Hawaii* by virtual helicopter for an aerial view of the



Visit Virtually Hawaii at: www.satlab.hawaii.edu: 80/space/hawaii/

year. Better do your research.

islands; take a tour of a volcano or a waterfall. Your mind can take off on vacation before you even turn in your vacation request.

Make the Pentium processor your passageway to any destination on the World Wide Web. For more information about the Intel® Pentium processor, visit our Web site.

► www.intel.com

PROUD PARTNER

150 1846–1996 Smithsonian

intel®

The Computer Inside.™

© 1996 Intel Corporation. *All other trademarks are the property of their respective holders.

DON'T READ THIS IF YOU CAN'T TAKE A JOKE.

BECAUSE THEN YOU'RE NOT QUALIFIED TO BE A JUDGE IN THE WORLD'S FIRST ONLINE COMEDY TALENT SEARCH.

Don't Quit Your Day Job, the funniest CD-ROM ever, Comedy Central, the funniest network ever, and CompuServe,® the funniest online service ever (well, at least they are now), are teaming up to bring you the funniest online contest ever.

And we need your help.

Starting July 11, and every week for six weeks, six contestants will get to display their comedic talents at the Comedy Central Online site and on CompuServe.

Check out each act. Then vote for the one you think is best.

Each week's winner will go on to the Finals, aired live at the CompuServe Convention Center where, as a Talent Scout, you'll truly have the power to make a star. (The Grand Prize Winner will get to appear at the Improv in L.A.)

In this contest judges can be winners, too. Each week, you could win *Don't Quit Your Day Job* T-shirts and CD-ROMs.

For more information about judging, or becoming a contestant, visit the Comedy Central Online or Philips Media sites on the World Wide Web, or the *Don't Quit Your Day Job* site on CompuServe (GO STANDUP).

So judge this contest. The only qualification is a sense of humor.

COMEDY CENTRAL

CompuServe® Comedy Central Online at http://www.comcentral.com/ HOMEPC PHILIPS

CIRCLE READER SERVICE NUMBER 45

©1996 Philips Media, Inc.

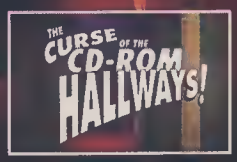
DON'T QUIT YOUR DAY JOB™

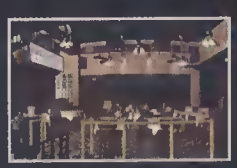
COMEDY CENTRAL

Judge or compete in the first Online Comedy Talent Search. For details, visit www.comcentral.com or GO STANDUP on CompuServe

IF YOUR COMIC DIES, SO DO YOU.

Hey, Big Shot, you land a gig as a talent scout for a top late-night talk show, and can make your career by making a star. You head to the Improv, hoping to discover the hottest new comic in the biz. Go behind the scenes and try to schmooze the right people at the right time. Maybe score some points. Will they kiss your butt or stab you in the back? Hey, it's Hollywood, right? Talk to people at the wrong time, like Angela the Agent when she's too toasted, and you could get flushed to Hell's Basement, where twenty doors lead to twenty challenges. To escape, play Shoot the Heckler and try to resist the Gratuitous Sex Room. Try to get back upstairs to catch some fresh material from today's hottest comics. Will you die laughing? Or just die?





PHILIPS

MATURE M AGES 17+

This 2-disk set for Windows CD-ROM contains 2 complete games and 3-D panoramic graphics.

CIRCLE READER SERVICE NUMBER 45

hot Stuff!

BY THE EDITORS OF HOMEPC

Intel accelerates release of 200-MHz Pentium, so PC makers move fast

Three months ago, Intel anticipated bringing out its superfast 200-MHz Pentium chips by the end of the year (see April's Hot Stuff!). Looks like it's Christmas in July, because the chips are already here—and home computer manufacturers are speeding up their production to deliver models that use the screamers by this summer.

At press time, IBM was all set to add a 200-MHz Pentium system (pictured above) to its Aptiva line in June (prices hadn't been determined). While the difference between 200- and 166-MHz performance in everyday computing may not set many home PC shoppers' hearts racing, the new Aptiva adds other goodies that put the extra muscle to good use. For starters, the system features TheatreSound, complete with high-power stereo speakers and a subwoofer, and Total Image Video, which delivers full-screen, three-dimensional action—pop the 3-D version of the included MechWarrior 2 disc into the six-speed CD-ROM drive and you'll be floored by the realistic detail. The optional Home Director makes it possible to let your computer control everything from the time your coffeemaker starts percolating to when the lights come on in your house. The program can even record your appliance usage over a three-day period and duplicate it when you're on vacation, making it look like someone's at home.

Meanwhile, AST's Advantage! 829 (below; $2,799, or $3,099 with monitor) pads its 200-MHz powerhouse with treats of a more conventional sort: 16 megabytes of RAM, a 2.5-gigabyte hard drive, an eight-speed CD-ROM drive, full-screen MPEG video playback, and sharp "3-D sound" via wavetable synthesis.

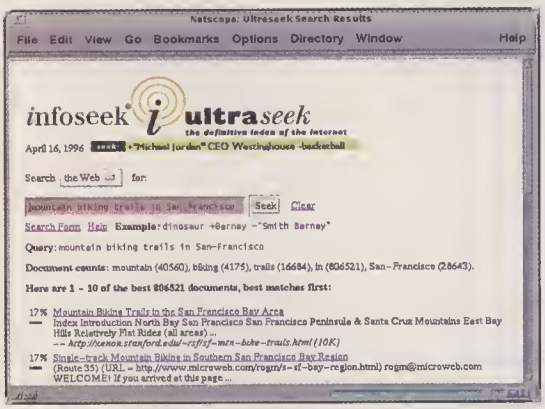
IBM, (800) 426-3333, (914) 765-1900,* http://www.ibm.com. *Circle #431

AST, (800) 876-4278, (714) 727-4141,* http://www.ast.com. *Circle #432

Light reading

Ever wonder what your modem's trying to tell you with its cryptic red and green LED lights? The Logicode Quicktel II ($399, PC; Macintosh version due in July) finally breaks through the language barrier: The snazzy phone/voice-mail/fax/modem's display relays some 100 status reports—connect speed, data transfers, fax activity and more—effectively translating those inscrutable blips. Of course, the fact that the Quicktel II tells you what it's up to wouldn't matter if it didn't have features to hold your interest, such as 28.8-Kbps voice and data communications over a single phone line, a built-in speaker and a microphone.

Logicode, (800) 735-6442, (805) 383-2500, http://www.logicode.com. *Circle #433*



A turbo search engine

Figure if you've seen one search engine on the World Wide Web, you've seen 'em all? Infoseek's Ultraseek (*http://www.ultraseek.com*), slated for a June debut at press time, is worth a second look: It handles an amazing 1,000 queries per second. Along with its speed, it promises to keep more than 25 million Web pages indexed and updated every week, meaning you'll see fewer outdated or obsolete pages; in addition, Infoseek promises that any new page submitted to Ultraseek will join the index immediately.

Call it houseware

What's the big IDEA? Diba thinks it's three new Interactive Digital Electronic Appliances, each of which crosses the convenience and price of a home appliance with a specific PC function. The Mail IDEA ($275, due this fall) is a phone with an LCD screen, a 14.4-Kbps modem, and a keyboard to handle e-mail. The Kitchen IDEA has a CD-ROM recipe collection and an LCD screen to mount under a cabinet. The Web IDEA, dubbed NetVision, will be built into a line of Zenith big-screen TVs; the Web browser and 28.8-Kbps modem will add $400-$600 to the price of the TV (due later this year).

Diba, (415) 596-1177, http://www.diba.com. *Circle #434*

Backup to the future

Recordable CD-ROM drives for backup have been trickling onto store shelves for about six months now (see Gear + Gadgets, January 1996), but they've been expensive, and the configuration hassles were no bargain, either. Now, Sony's Spressa 940 and 9411CD-R PC drives ($700-$800 in stores) make progress; both save data to 650-megabyte CD-ROMs as easily as if they were 1.44-MB floppies. The secret? The included Corel CD Creator software, which lets you use the "Save As" or drag-and-drop method to record data to the disc quickly.

Sony, (800) 352-7669, (408) 432-1600, http://www.scl.sony.com/SEL/ccpg. *Circle #435*

The art of Bart

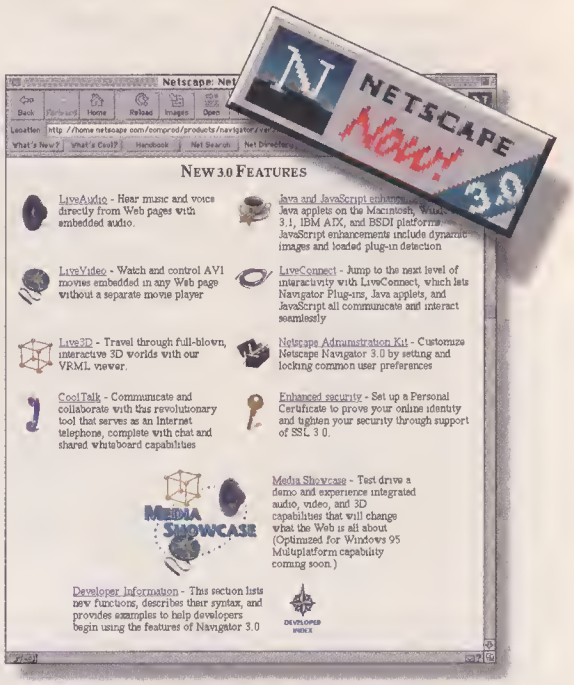
It's been a good gig for cartoonist Matt Groening, and now you, too, can try your hand at creating animated episodes with The Simpsons Cartoon Studio ($39.98, Windows 3.1 CD-ROM, Macintosh CD-ROM). As director, you or your child can choose from dozens of Springfield, U.S.A.'s finest backgrounds, then add characters, dialogue and sound effects.

Fox Interactive, (310) 369-3900,* http://www.fox.com/foxia.com. *Circle #436

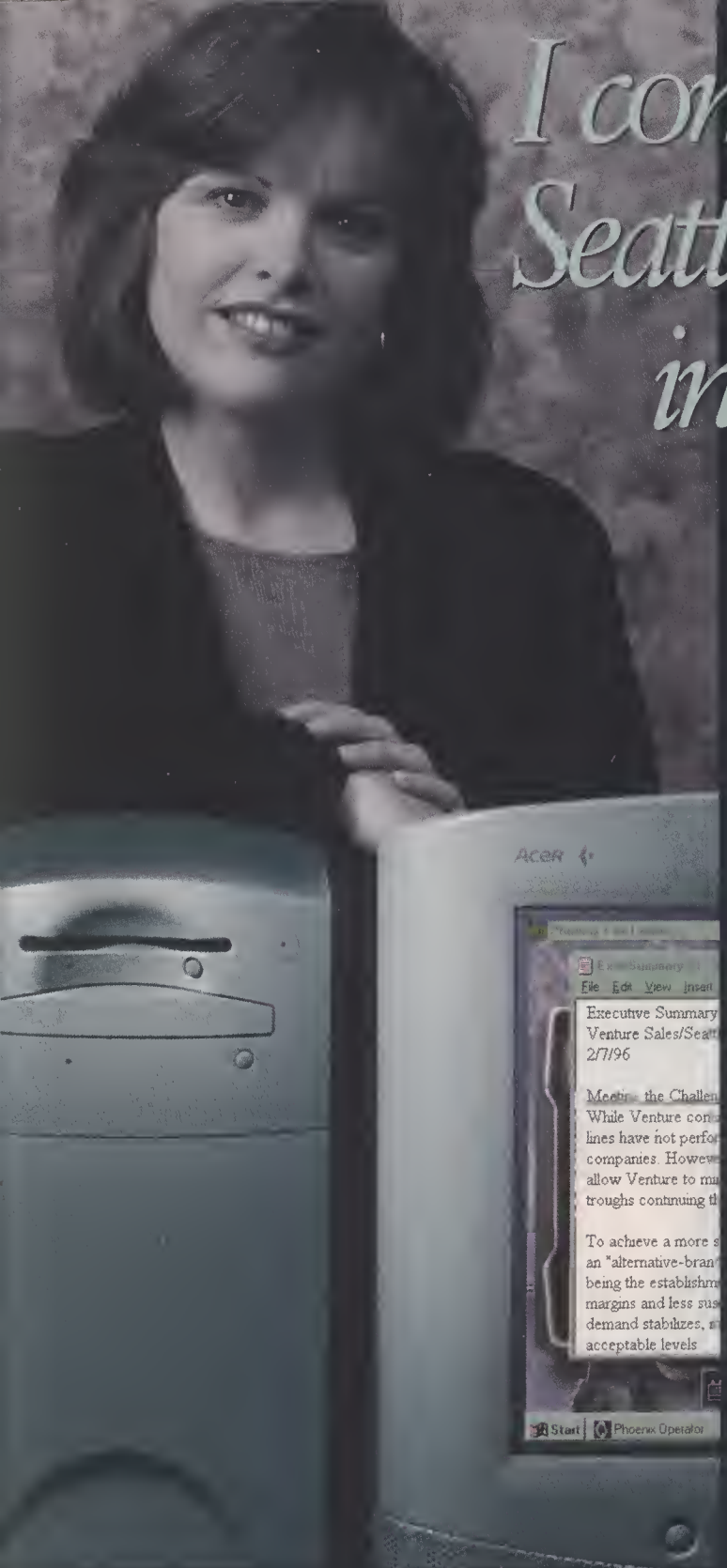
Netscape's improving ground

It seems like only yesterday that the Netscape Navigator 2.0 Web browser was introduced. Actually it's been a few months, and that's an eternity on the Internet; the pre-release version of Navigator 3.0 is already available for free download (*http://home.netscape.com*; the registered version will cost $49). The browser screen looks the same, but the software has 75 new features, including video, audio, 3-D and Internet phone components, and enhanced JavaScript, security and cache capabilities. The advances take a toll, though: Navigator 3.0 hogs a hefty 5 megabytes of RAM.

Netscape, (415) 937-3678, http://home.netscape.com. *Circle #437* ●



I commute from Seattle to Boston in seconds.



I got an offer to run a satellite sales office. Aspire. To Do More.

But there was a catch — a 3,000 mile catch.

I couldn't bear the thought of leaving home.

Fortunately, my company liked the idea of telecommuting. And that's when I got my Acer® Aspire™ 2550 Minitower. It takes me from home to headquarters in seconds. It has online software and a powerful fax modem that lets me e-mail my executive summaries to corporate on time. Plus, a large hard drive, a high-speed CD-ROM drive and stereo speakers that really jazz up my multimedia presentations.

And because my Aspire 2550 Minitower has an Intel® Pentium® processor, I have just as much computing power as my colleagues at the office.

Now I can have my latté at work just the way I like it—while working from home.

A few more things I can Aspire to do:

Order dinner from a local restaurant.

Negotiate contracts online.

Manage my company stock options.

Keep up with my business journals.

Comparison shop for designer clothes.

And cruise the Internet.

Acer ® *Everything You Aspire To.*

For the location of the Acer dealer nearest you, call 1-800-529-ACER. Or visit us on the World Wide Web at http://www.acer.com/aac/

Acer and the Acer logo are registered trademarks and Aspire is a trademark of Acer America Corporation and Acer Inc. The Intel Inside logo and Pentium are registered trademarks of Intel Corporation. Microsoft, Windows and Windows logo are registered trademarks of Microsoft Corporation. All other brands and product names are trademarks or registered trademarks of their respective companies. © 1996 Acer America Corporation. All rights reserved. Specifications vary by model and configuration, are subject to change without notice, and not all models/colors available at all retail locations. See your local retailer for more information and details on Acer's Limited Product Warranty.

intel inside pentium PROCESSOR

Designed for Microsoft® Windows®95

Simply
the animal kingdom,
a new language,
exploring the moon,
Inspiring.

Introducing the SyncMaster™ "e" Series monitors.

A world of experience is yours to discover on "e" Series monitors. Their simple, high-performance features let you see all the world has to offer – in bright, crisp, brilliant color. The affordable SyncMaster "e" Series monitors. Simply Inspiring. Simply Samsung.

SyncMaster	3Ne	4Ne	6Ne
CRT Size	14"	15"	17"
(Actual Viewable Area)	(13.2")	(13.8")	(15.75")
Limited Warranty	3 years	3 years	3 years

SAMSUNG

For information on "e" Series Monitors call 1-800-933-4110, or use Fax-on-Demand at 1-800-229-2239.

© 1995 Samsung Electronics America, Inc. Safari image copyright of Alpenglow. Information and Sales 1-800-440-5595.
PRODIGY is a registered service mark and trademark of Prodigy Services Company. To try PRODIGY, call 1-800-PRODIGY.

CIRCLE READER SERVICE NUMBER 74

best buys

BY JENNIFER TRIVERIO

Color printer's a shade under $200

If you're thinking of stepping up from a black-and-white printer, green is invariably the first color that comes to mind, given all the cash you may think you need to spend. The good news is that Canon has lowered the price on its BJC-210 ink jet model to a level that won't make you see red.

Now selling for $199, the BJC-210 churns out four pages per minute in black and white (with a maximum resolution of 720 by 360 dpi) and 0.27 ppm in color (at up to 360 by 360 dpi). The top-loading printer, which tips the scales at slightly less than six pounds and fits within the dimensions of a legal pad, can handle 100 sheets of plain paper, 15 envelopes or 40 transparencies. The included Color Advisor software will help ensure that your printouts have the right balance of tones.

To give you the impetus to experiment with Color Advisor, the BJC-210 comes with the Creative CD-ROM, which includes print projects from Hallmark Connections Everyday Greetings, Crayola Art, Stationery Store, Pattern Maker, Sticker & Label Store, and more than 300 clip-art images and TrueType fonts. For $9.95 more, you'll get the Starter Kit of paper samples (coated, transparency, backprint and high-gloss) and T-shirt iron-ons.

Finally, to guarantee that your reduced investment goes a long way, the printer carries a two-year warranty.

Canon, (800) 848-4123, (714) 438-3000,* http://www.usa.canon.com. *Circle #407

From here to fraternity

Congratulations! All those years of hard work have paid off, and your child has aced the SATs. Now it's *your* turn to do some homework: You need to figure out how to foot today's hefty college bills. Kaplan, the exam-tutorial company, can help you bone up on personal finance with its free on-line advice service.

Kaplan's Web site (*http://www.kaploan.com*) is a rich source of information, offering the 10 basic steps of applying for financial aid, tips for maximizing grants and more. Other

areas include a guide to college-funding options, from College Work Study to the federal Pell Grant (you can request applications for various programs at the site); a glossary; and a college-admissions timeline. You can also download the KapLoan Financial Contribution Estimator to help you calculate your Expected Family Contribution, which is used to determine eligibility for federal aid.

Kaplan, (888) 527-5626, (212) 752-1840, http://www.kaploan.com. *Circle #408*

These red tags raise no red flags

It seems low-priced computer games are a dime a dozen these days, but if the play isn't satisfying, the program's no bargain. The Maxis Collector's Series boasts eight proven winners on disc, now marked down to just $14.95 each, including the ever-popular SimCity Classic, SimFarm Classic, SimEarth Classic and SimAnt Classic (Windows 3.1 CD-ROM, Macintosh CD-ROM); stars on the diamond and in the sky with Baseball for Windows and Discover Astronomer (Windows 3.1 CD-ROM); and, for kids, Zaark and the Night Team: The Quest for Patterns, and Zurk's Li'l Safari (Windows 3.1 CD-ROM).

Maxis, (800) 526-2947, (510) 933-5630,* http://www.maxis.com. *Circle #409

Internet disc has low toll, top tools

With all the Internet products available these days, just getting your feet wet may be the hardest part of on-line surfing. ExpressNet Suite ($49.95, Windows 3.1 CD-ROM, Macin-

Top of the charts

The best-selling software for multimedia PCs and Macintosh systems

Personal productivity

1. **TurboTax** ..... *Intuit*
2. **TurboTax Deluxe CD-ROM for Windows** ..... *Intuit*
3. **Print House** ..... *Corel*
4. **TaxCut CD-ROM for Windows** ..... *Block Financial*
5. **Quicken Deluxe CD-ROM for Windows** ..... *Intuit*
6. **Quicken CD-ROM for Windows** ..... *Intuit*
7. **Print Shop Deluxe CD Ensemble** ..... *Broderbund Software*
8. **Softkey CD Jewel Case Promotion** ..... *Softkey International*
9. **TurboTax (state versions)** ..... *Intuit*
10. **Publisher** ..... *Microsoft*

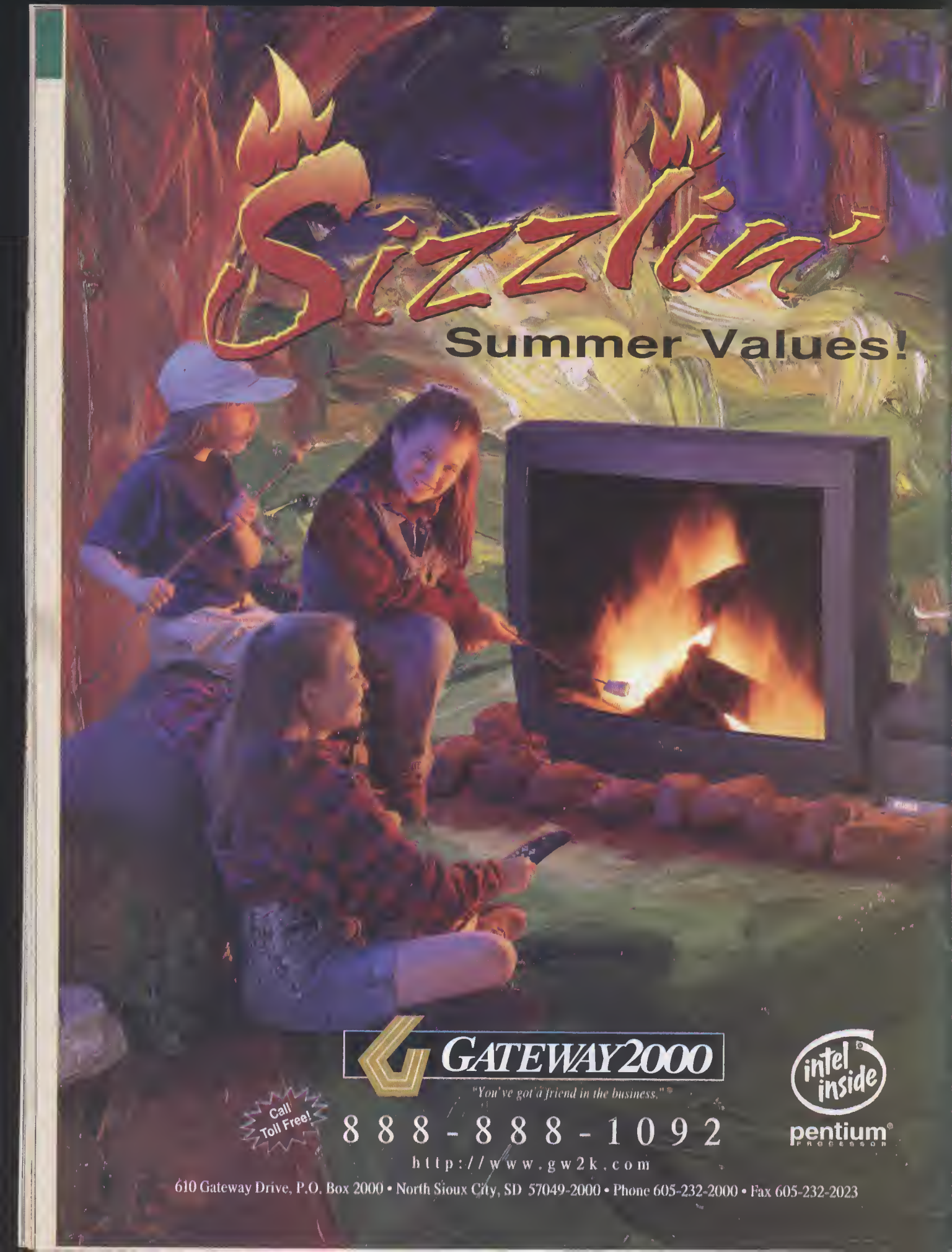
Games

1. **Warcraft II: Tides of Darkness** ..... *Blizzard Entertainment*
2. **Civilization II*** ..... *Microprose*
3. **Myst** ..... *Broderbund Software*
4. **Descent II*** ..... *Interplay*
5. **Wing Commander IV** ..... *Origin*
6. **Command & Conquer: Covert Mission*** ..... *Virgin Interactive*
7. **Command & Conquer** ..... *Virgin Interactive*
8. **Flight Simulator** ..... *Microsoft*
9. **MechWarrior 2** ..... *Activision*
10. **NBA Live 96** ..... *Electronic Arts*

Education

1. **Disney's Animated StoryBook: Pocahontas** ..... *Disney Interactive*
2. **Where in the World Is Carmen Sandiego?** ..... *Broderbund Software*
3. **Math Blaster: In Search of Spot** ..... *Davidson & Associates*
4. **Disney's Animated StoryBook: Winnie the Pooh** ..... *Disney Interactive*
5. **The Lion King Activity Center** ..... *Disney Interactive*
6. **Mathematics Box Set** ..... *SofSource*
7. **Where in the USA Is Carmen Sandiego?** ..... *Broderbund Software*
8. **Fisher-Price Ready for School*** ..... *Davidson & Associates*
9. **Mavis Beacon Teaches Typing** ..... *Mindscape*
10. **Dr. Seuss's ABCs** ..... *Living Books/Broderbund*

Source: PC Data (for March 1996) ** First time on charts*


Sizzlin'
Summer Values!
GATEWAY2000
"You've got a friend in the business."
Call Toll Free!
888-888-1092
http://www.gw2k.com
610 Gateway Drive, P.O. Box 2000 • North Sioux City, SD 57049-2000 • Phone 605-232-2000 • Fax 605-232-2023
intel inside
pentium
PROCESSOR

Big Screen PC

D5-166

- Intel® 166MHz Pentium® Processor
- 16MB EDO Performance DRAM
- 256K Pipelined Burst Cache
- 2.5GB 11ms EIDE Hard Drive
- Destination 2MB VRAM Graphics Accelerator with Cable-Ready TV Tuner
- 8X CD-ROM Drive
- 3.5" Diskette Drive
- 16-Bit Hi-Fi Wavetable Audio Card
- TelePath® 28.8 Fax/Modem
- Destination 31" VGA Monitor
- 7-Bay Charcoal-Colored PC Case
- Wireless Keyboard with Integrated EZ Pad™ Pointing Device
- Wireless Field Mouse™ Remote with Integrated Trackball
- Four-Channel RF Receiver
- Microsoft® Windows® 95
- Destination Software Collection
- Gateway Gold™ Service and Support†

$3999

Option

- harman/kardon High-Fidelity Sound System

Seven-piece Dolby® Surround Sound Pro Logic speaker system including AVR-10 audio/video receiver with remote, subwoofer, center channel and four satellites for the ultimate home stereo experience.

$699

†The Destination 31" monitor is only covered by a one-year limited warranty. Call or write for a free copy of our warranty.

90 DAYS NO PAYMENTS

*Ask About Our "90 Days No Payment" Program!**

Gateway accepts most major credit cards and COD terms, with net 30-day terms and leasing options available to qualified commercial customers. You can also apply for the Gateway 2000 DuoLine™ MasterCard® card, issued by Dial National Bank, Des Moines, Iowa.

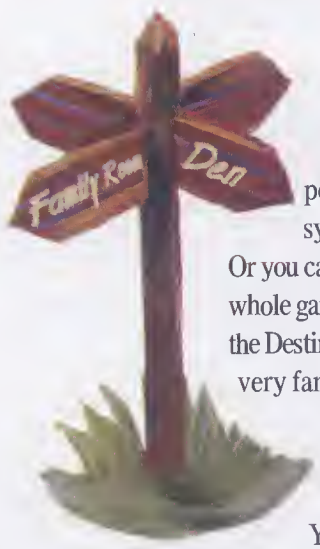
Roll Out T

Welc
ca

D
anot
we give y

The Quality Shines Thr

Outstanding multimedia performanc
nights (and days)! From 16MB memory to 8X
— these Gateway 2000 PCs are packed with high-performan
maximize your multimedia experience. And a powerful
processor really gets the software smokin.' Our multime
shining example of quality and reliability. Plus, each on
to meet your needs.



Choose A Path

The choice is yours.
personal computing path w
system for individual project
Or you can blaze a new trail with a D
whole gang gather 'round the cyber
the Destination Big Screen PC has c
very familiar — it's the combina
television and the compu
wireless keyboard just s
will lead to the perfect
You can be camped out in

intel inside
pentium® PROCESSOR

GAT

"You've

Call Toll Free! 8 8 8 - 8

http://www.g

© 1996 Gateway 2000, Inc. Gateway 2000, black-and-white spot design, "G" logo, "You've g
Destination, EZ Pad, Family PC, Field Mouse, Gateway Gold, Gateway 2000 DuoLine and Vi
registered trademarks of Intel Corporation. All other brands and product names are trademarks or
to change without notice or obligation. Pric

he Values

me to the Gateway 2000® high-performance multimedia
npground! We've cooked up some great values for you. So
take your pick of custom-built, high-quality PCs. Will
it be a Family PC multimedia system for the den or a
estination™ Big Screen PC for your family room? Put
ner log on the fire and make yourself comfortable while
ou the scoop on these incredible PCs.

ough

e will light up your
CD-ROM drives
ce hardware to
Intel Pentium
lia systems are a
e is custom-built

You can travel down the
with a Family PC multimedia
s like homework, research or balancing the checkbook.
estination Big Screen PC for the family room. Let the
ire. Interactive computing is now a reality. And while
eated a brand new computer category, its technology is
tion of the PC and the TV. You operate both the
ter with one easy-to-use remote control. And a cool new
houts to be passed around! Only you know which path
PC for your family.
front of a new PC soon! Call Gateway 2000 today.

Multimedia Systems

P5-120 FAMILY PC™

- Intel 120MHz Pentium Processor
- 16MB EDO Performance DRAM
- 850MB 10ms EIDE Hard Drive
- 1MB DRAM, 64-Bit PCI Graphics Accelerator
- 8X CD-ROM Drive
- 3.5" Diskette Drive
- 16-Bit Gateway Sound Card
- Altec™ Lansing ACS-40 Speakers
- TelePath 28.8 Fax/Modem
- Gateway Information Highway/System CD
- CrystalScan®15 .28dp Monitor (13.9" viewable)
- 7-Bay Mini Tower Case
- 104+ Keyboard & MS Mouse 2.0
- MS Windows 95
- Generations II Software Collection
- Gateway Gold Service and Support

$1899

P5-166 FAMILY PC

- Intel 166MHz Pentium Processor
- 16MB EDO Performance DRAM
- 256K Pipelined Burst Cache
- 2.5GB 11ms EIDE Hard Drive
- 2MB DRAM, 64-bit PCI Graphics Accelerator
- 8X CD-ROM Drive
- 3.5" Diskette Drive
- 16-Bit Gateway Sound Card
- Altec Lansing ACS-40 Speakers
- TelePath 28.8 Fax/Modem
- Gateway Information Highway/System CD
- Vivitron™17 .26dp Monitor (15.9" viewable)
- 7-Bay Mini Tower Case
- 104+ Keyboard & MS Mouse 2.0
- MS Windows 95
- Generations II Software Collection
- Gateway Gold Service and Support

$2699

TEWAY2000

got a friend in the business."®

8 8 - 1 0 9 2

w2k.com/destination

t a friend in the business" slogan, CrystalScan and TelePath are registered trademarks, and tron are trademarks of Gateway 2000, Inc. The Intel Inside Logo, Intel and Pentium are egistered trademarks of their respective companies. All prices and configurations are subject es do not include applicable sales tax.

TOMATO KETCHUP
Mustard

tosh CD-ROM) is making waves by putting everything you need to get started on a single disc.

ExpressNet hooks you up with the EarthLink Network, which offers unlimited Net access for $19.95 a month, and provides the Netscape Navigator 2.0 browser, as well as SurfWatch parental-control software and Internet Phone (each sells separately for $50), the Internet Coach tutorial, Netscape multimedia plug-ins and, in the PC version, a mike.

Once you've set up your browser, all the goodies are a mouse click away. SurfWatch lets you block access to Internet sites inappropriate for children; Internet Phone enables you to make inexpensive long-distance calls through your PC to others who use the same software; and the Netscape plug-ins—including QuickTime, RealAudio and Shockwave—give you real-time video, radio broadcasts and animation from various Web sites, eliminating the need

Top of the charts

Windows 95

1. **Windows 95 Upgrade** ..... *Microsoft*
2. **Print House** ..... *Corel*
3. **Microsoft Plus** ..... *Microsoft*
4. **VirusScan** ..... *McAfee*
5. **Norton AntiVirus** ..... *Symantec*
6. **UnInstaller** ..... *MicroHelp*
7. **Netscape Navigator 2.0** ..... *Netscape*
8. **Publisher** ..... *Microsoft*
9. **After Dark** ..... *Berkeley Systems*
10. **Spycraft** ..... *Activision*

Macintosh education

1. **Disney's Animated StoryBook: Pocahontas** ..... *Disney Interactive*
2. **The Lion King Activity Center** ..... *Disney Interactive*
3. **Mavis Beacon Teaches Typing** ..... *Mindscape*
4. **Kids Mac Pak** ..... *Creative Wonders*
5. **Kid Pix Studio** ..... *Broderbund Software*
6. **The Oregon Trail** ..... *MECC*
7. **Mario Teaches Typing** ..... *Interplay*
8. **Where in the World Is Carmen Sandiego?** ..... *Broderbund Software*
9. **The Way Things Work** ..... *D.K. Multimedia*
10. **A.D.A.M.: The Inside Story** ..... *A.D.A.M. Software*

Macintosh games

1. **Myst** ..... *Broderbund Software*
2. **SimCity 2000** ..... *Maxis*
3. **5 Ft. 10 Pak*** ..... *Sirius*
4. **Warcraft: Orcs & Humans*** ..... *Blizzard Entertainment*
5. **Top Ten Pak** ..... *Electronic Arts*

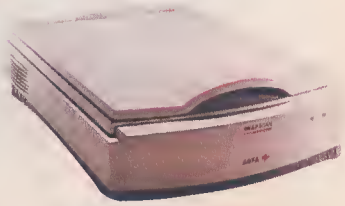
Macintosh personal productivity

1. **MacInTax** ..... *Intuit*
2. **Quicken** ..... *Intuit*
3. **MacInTax (state versions)** ..... *Intuit*
4. **Print Shop Deluxe CD Ensemble** ..... *Broderbund Software*
5. **Quicken Deluxe CD-ROM** ..... *Intuit*

Source: PC Data (for March 1996) ** First time on charts*

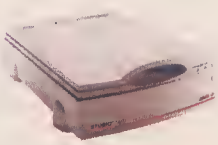
what if your PC could see?

That great one-of-a-kind idea for a Web site could become a reality. It only takes a few seconds and the right scanner. Agfa, a company that has always been known for creating quality images, now brings you an easy-to-use scanner for an incredibly low price. SnapScan.™ In just one pass, it captures your visual exactly, whether it's a snapshot, artwork or a transparency. And it comes with selective color correction software, so you can make your image just right. With SnapScan, your scans look great. The rest is up to you.



SnapScan $389

One-pass scanning, push-button ease, 300 x 600 dpi resolution, 24-bit. Adaptec PC SCSI card. Software for Mac® or PC: Agfa Scanner CD with FotoLook™ and FotoSnap™ (scanner driver software), FotoFlavor™ (selective color correction software), SOFT copy™ (Fax-Copy-Print utility), OmniPage™ Limited Edition CD (OCR software), PhotoImpact™ SE CD and Color It!™ (image editing software). Optional transparency module and Automatic Document Feeder available.



StudioStar $985

One-pass scanning, optimum color and 600 x 1200 dpi resolution, 30 bit. Adaptec PC SCSI card. Software for Mac® or PC: Agfa Scanner CD with FotoLook,™ FotoSnap,™ FotoFlavor,™ and FotoTune™ (color management software), IT-8 reflective color calibration target, SOFT copy,™ OmniPage™ Limited Edition CD and Photoshop™ LE CD (image editing software). Optional transparency module and Automatic Document Feeder available.

www.agfahome.com

AGFA Agfa
The complete picture.

WHAT DO YOU SEE?

Agfa Division, Bayer Corporation, 100 Challenger Rd., Ridgefield Park, NJ 07660.
Call us at 1-800-685-4271, extension 4367. In Canada, please call 1-800-268-1331, ext. 4032.

The following AgfaType™ fonts are used in this ad: DIN 17, Sabon and Frutiger.

AGFA and the Agfa rhombus are registered trademarks of Agfa-Gevaert AG. StudioStar, SnapScan, FotoLook, FotoSnap, FotoFlavor, FotoTune and AgfaType are trademarks of Agfa-Gevaert N.V. All other products are trademarks or registered trademarks of their respective companies.

CIRCLE READER SERVICE NUMBER 69

to first download the respective files to your hard drive.

Graphix Zone, (800) 828-3838, (714) 833-3838, http://www.gzone.com. *Circle #410*

Discounts to the Macs

Are you looking forward to the ease of use of a muscular Macintosh but not the number of bills you have to peel from your bankroll for a new Apple machine? Power Computing has a tasty alternative: the PowerCenter 120 Starter Mac-compatible.

For $1,895 (monitor not included), you get a 120-MHz processor, 8 megabytes of RAM, an 850-MB hard drive, a quad-speed CD-ROM drive, 1 MB of video RAM, a 256-kilobyte Level 2 cache to help speed system response, a Mac 15-pin SVGA connector, three PCI expansion slots, and built-in Ethernet for linking to other computers.

You'll also get software, including ClarisWorks, Quicken, Grolier's Multimedia Encyclopedia, and the Now Contact and Now Up-To-Date PIMs. For $195 more, hook up to the Web with the Internet Package—modem and all.

Power Computing, (800) 999-7279, (512) 388-6868, http://www@powercc.com. Circle#411

The Web's redeeming qualities

The Sunday morning coupon-clipping ritual goes high-tech at H.O.T. Coupons (*http://www.hotcoupons.com*), a new way to save money on home, office and travel products on the Web.

Discounts at the site cover a range of products and services, from photo processing to a seven-day Caribbean cruise ($699 at press time) to pizza. You can search the 30,000 offers by region or zip code. To redeem coupons, just download them and print as many as you need. It pays to check in often; the deals are updated daily.

Old batteries fade—but never die

With shelf space at a premium, computer retailers' adage is "Out with the old, in with the new." That's usually fine for shoppers, but when the "old" that's out is your laptop, it's no fun scrambling to find suddenly scarce batteries to keep it running.

To the rescue comes Power Express, which carries rechargeable nickel-cadmium, lithium-ion

and nickel/metal hydride batteries ($39-$299) for almost every portable ever made. And if the service doesn't have what you need, just send in your old battery and the staff will rebuild it, proving another old saying: Everything old *is* new again.

Power Express, (800) 769-3739, (408) 879-1930, http://www.powerexpress.com. Circle #412 •

WHAT EFFECT COULD SPEEDYROM™ HAVE ON YOUR CD-ROM DRIVE?

Let's face it. With most CD-ROM drives, you have to wait an eternity as the drive chugs along.

But SpeedyROM can change that in a hurry. This software program makes any CD-ROM drive run faster, regardless of its present speed. SpeedyROM's exclusive technology reduces waiting time and boosts performance, even in the latest 8x-speed CD-ROM drives. So you can zip through all your favorite CD titles—and enjoy them even more.

Need to search your favorite CDs quickly for reference information? SpeedyROM lets you browse those encyclopedia entries and clip art files faster than ever before. Which helps you do more work in less time.

And SpeedyROM can take your CD-ROM games to an even higher level. It can reduce choppiness in the graphics, to smooth out game play. You also get the improved responsiveness you need for the latest, most demanding games.

SpeedyROM. It's far less expensive than a new CD-ROM drive, yet gives you the same fast results. To find out more, call us at 1-800-683-6696 and ask for code 01151. You can also see your local retailer. Or visit our website at http://www.quarterdeck.com/

Then, get SpeedyROM. And put a lot more drive in your CD-ROM drive.

QUARTERDECK

© 1996 Quarterdeck Corporation. All rights reserved. Quarterdeck is a registered trademark. SpeedyROM and the Quarterdeck "Q" symbol are trademarks of Quarterdeck Corporation. All other products mentioned are trademarks or tradenames of their respective holders.

Good PC speakers come in all shapes, sizes and price ranges; lend an ear, and

SOUND

by Robert J. Atkinson

By now, those puny pops of gunfire you hear when playing Descent II, the muffled music excerpts you endure while exploring The Viking Opera Guide, and the curiously subdued bass line in your Red Hot Chili Peppers audio CD have probably convinced you that your home computer's sound will never be a match for your stereo system. It's no mystery why you'd feel that way: Even as sound becomes more important in multimedia software, many computer manufacturers skimp on one important component—the speakers. For music, the audio may strike you as not much of a leap from your old transistor radio, and in games, weak speakers can reduce today's rich multimedia soundtracks to the blips and beeps of Space Invaders.

But tinny, piercing sounds coming from your prepackaged speakers aren't the last word in PC audio. It's not hard to find high-quality multimedia speakers that will satisfy every ear and budget, bearing names you'll recognize from the stereo store, as well as those of respected manufacturers in computers and multimedia.

For as little as $40, you can buy speakers that improve upon the pair that came with your system. Or, if you're a dedicated audiophile—and can part with $800—you can sit back and enjoy speakers worthy of a home theater. (Either way, you'll need a capable 16-bit sound card, which turns digital information into analog audio, to get the speakers really pumping. For some recommendations, see the Editors' Choice Awards in the April issue of *HomePC*.)

While you might like to connect home stereo speakers to your PC, that's not an option. For one thing, they probably don't have

we'll tell you which ones make multimedia sing.

Speakers' corner: We've tested and rated 15 pairs, from budget to audiophile.

AD VICE

built-in amplifiers; instead, your stereo system supplies the jolt of 40 to 100 (or even more) watts of power required to kick up the volume. But an included amp or two is a must for multimedia speakers, because the amps on PC sound cards deliver a relatively paltry 4 watts of power.

Multimedia speakers also require some extra controls—volume, treble and bass, for instance—that you won't find on most home stereo speakers, which are usually controlled from a receiver or another component. On a multimedia speaker, the controls should be accessible from the front, top or side; controls on the speaker itself spare you the hassle of fumbling with your audio software's on-screen commands to turn down the sound when you hear the phone ringing.

Some multimedia speakers also provide headphone jacks and microphone pass-through connectors, so you don't have to reach around your computer to plug those items into your sound card. You may even find two stereo inputs, allowing you to hook up both a sound card and another sound source—perhaps a portable CD player.

Home stereo speaker drivers, such as woofers and tweeters—which push air around to make, respectively, low- and high-frequency sounds—present another problem: They can create electromagnetic interference on your PC, which can affect image quality on your monitor or erase the contents of a floppy disk. Multimedia speakers have magnetic shielding to cancel out any such interference.

Some multimedia speakers come with a subwoofer—a separate box that helps "fill out" the sound by reproducing bottom-end frequencies such as the electric bass guitar in rock music or the rumbling earthquake sound effects in games. (In such three-piece set-

ups, the speakers are often referred to as "satellites.") But most subwoofers aren't magnetically shielded; if you get one, be sure to place it at least a foot away from your computer to avoid problems.

Another increasingly popular feature on multimedia speakers is 3-D sound. The effects can range from a sensation of spaciousness to the illusion that a bullet was actually fired from just behind your ear. (For more on 3-D sound, see the sidebar below.)

WHAT'S WATT?

When you're shopping for a pair of speakers, you'll hear about two important ratings again and again: power and frequency response. The power rating is typically expressed in watts per channel; generally, the higher the watts-per-channel spec of a speaker's amplifier, the louder the volume can go without causing distortion. (You may see the abbreviation RMS, for root-mean-square, after this spec on a product sheet; this refers to the average, or sustained, power rating, rather than a less reliable peak power rating.)

A power rating of 10 watts is usually sufficient, but specs don't tell everything.

A power rating of 10 watts per channel is usually sufficient for listening to music at normal volume. But the rating alone doesn't tell the whole story. A set of 10-watt-per-channel speakers that very efficiently translate their power into sound may seem considerably louder than another pair with the same rating—and

The sounds of science: Adventures in 3-D audio

Remember thase old 3-D mavies, B-flicks with crawling rubber mansters and screaming starlets? The gimmick essentially faded inta '50s lare, but these days, 3-D saund appears ta be making a mare lasting impression: The surraund-saund technique is adding an impressive new dimensian ta hame-camputing entertainment.

Altec Lansing's ACS500 speakers use Dolby Pra-Logic Surraund Saund—with four drivers in each speaker—ta send sound in different directions; the effect is similar to placing five speakers araund a room. But ta experience 3-D saund, yaur CD-ROMs and audia CDs must be Dalby-encaded. That may nat be a prablem for long with CD-ROMs: Dalby Labaratories and Microsaft have teamed up ta develop such discs.

Speakers that use Dalby are typically a bit pricey, but manufacturers are using other, mare cast-effective ways ta create 3-D effects. The three alternative methads rely on frequency shifts ar time delays in certain portians af the audio ta trick yau into thinking saund is caming fram all araund you.

QSaund is the most effective at creating the illusion that, say, a rocket is appraaching fram behind you. But multimedia and music titles must be pragrammed ta use it, and there aren't yet many QSaund-campatible praducts. (None af the speakers in our raundup use the technology.)

The Spatializer and SRS (Saund Retrieval System) technalagies dan't require special encading for discs, but neither is quite as effective as Dalby or QSaund. Listen to the Spatializer-based Labtec LCS-3210 ar SRS-based Nakamichi SP-3d speakers, and yau'll hear saunds as if they were caming from nearer ar farther away than the speakers' physical locatian—but neither pair will canvince yau that a bamb's just expladed beside yau. —*R.A.*

You'll have to search the galaxy to find a more realistic multimedia experience than this.

There's not much doubt that intelligent life forms exist somewhere else in the universe. The question is: Are their multimedia systems as advanced as ours?

The new **Sound Blaster 8x Kits** make your current multimedia system seem like something out of a history book. They give you a brain-blistering 8x CD-ROM drive that makes all your CD-ROM software perform at warp speed. The 8x drive uses an IDE interface and is compatible with multiple standards including Photo CD and CD EXTRA.

You also get one of the hottest sound cards on the planet — the Sound Blaster 32 PnP. It delivers the brilliant realism of **32-note polyphony** and **wave-table synthesis**, adding new detail and richness to both sound effects and music. It also features Creative's **3D Stereo Enhancement Technology** to make your whole system sound better.

Since the search for bargains is universal, a fat collection of the hottest new games and software comes with every kit. Sound Blaster Performance 8x is designed for the multimedia fanatic. Sound Blaster Discovery CD 8x takes the whole family to the cutting edge. Both come with a pair of Sound Blaster speakers powerful enough to attract low-flying spacecraft. If you're looking for the ultimate CD-ROM upgrade, Blaster CD 8x gives you mach speed and great software to boot.

Great software value in every kit!

So the next time you see aliens from your window, just point them to the nearest Creative Labs dealer. Think of it as a way to promote harmony in the universe.

Introducing Sound Blaster 8x Multimedia Upgrade Kits

	CD-ROM	Speakers	Sound Card					
	CD-ROM Drive	Stereo Speakers	Play Audio CDs and Games	Record 16-bit audio	Wave-Table Synthesis	32-Note Synthesizer	128 Real Instrument Sounds	3D Stereo Enhancement
Typical Multimedia System	4X							
Sound Blaster Multimedia Kit	8X							

CREATIVE

CREATIVE LABS, INC.

http://www.creativelabs.com

For more information call our Faxback Service at 405-372-5227 or Customer Service at 800-998-5227 x134. © 1996 Creative Technology Ltd. Sound Blaster and Creative Labs are registered trademarks and the Sound Blaster compatibility logo, Sound Blaster Performance, Sound Blaster Discovery CD and Blaster CD are trademarks of Creative Technology Ltd. All rights reserved.

CIRCLE READER SERVICE NUMBER 19

may even sound better than 20-watt speakers.

The frequency-response rating indicates the range of sounds speakers can reproduce—from extreme low notes to the upper reaches of human hearing. An ideal frequency-response rating is from 20 Hz at the low end to 20 kHz at the high end, mirroring the generally accepted range of frequencies the human ear can potentially hear.

But most of us don't hear sounds across that entire range. And no two people hear exactly the same way—for instance, you may be more sensitive to higher notes than your best friend is. Add this to the mix, too: A speaker with a 40-Hz frequency-response rating at the low end—that is, good bass response on paper—may actually perform poorly at the lower range in the real world, just as speakers with good ratings at higher frequencies may still give you trouble with treble.

So, if you can only partially trust the specs, how do you decide which speakers to buy? Take some well-recorded music CDs to the store with you to play on different speakers. Don't bring a multimedia CD-ROM, though; its audio quality won't match that of a music CD, so you won't get a good sense of the speakers' capabilities. Although it's rare for a computer store to have caught up with the needs of home buyers enough to build a sound room for speaker auditions, playing the same material on different speakers will give you some points of comparison. (See "How we tested" above to learn how we evaluated speakers for this review.)

For our roundup of 15 sets of speakers for both PCs and Macintosh computers, we divided products into four categories: Budget (speakers that you'll find retailing for around $125 or less that deliver acceptable or better sound for games and casual music listening); Mid-price (from $180 to $300, and typically a big improvement over most PCs' original speakers); Professional (suitable for the serious digital musician, selling for about $200 to $299); and Audiophile (geared to the demands of listeners who want no-holds-barred multimedia, ranging in price from about $400 to $800).

How we tested

To audition each pair of speakers, I listened to three audio CDs to help assess the speakers' capabilities across the musical spectrum. Oasis's "Definitely Maybe" CD was a good test of how well the speakers reacted to blaring guitars and other rock sounds; a recording of Mozart's horn concertos by the Hanover Band provided insight into how realistic the instruments sounded; and Mozart's *Cosi fan tutte* with Janet Baker revealed the speakers' ability to hold up under the sonic demands of opera. Remember, hearing is subjective; I may notice flaws in the speakers that you wouldn't consider distracting—and, of course, vice versa. —*R.A.*

Use a favorite music CD to test speakers; it's a better gauge than a CD-ROM.

BUDGET

The choices below will nicely fill your computer room or home office with sound and music. While they'll likely improve on your current setup, their low cost may exact a price: The audio quality may be a little sloppy and the lower bass range a bit weak. (While subwoofer options for the Koss and Yamaha speakers can further boost bass response, they lift them out of the budget category, so we didn't review them.)

Altec Lansing ACS52

For overall sound quality, these speakers surpass competitors such as the Jensen JPS45 and Koss HD/50 speakers (see below). Nevertheless, they fall short in the upper musical range and can sound strident at times, which poses a problem if you play much classical music. The speakers have a power rating of 9.5 watts per channel and a frequency-response rating of 60 Hz to 20 kHz; they can hook up to two sound sources, and their controls for volume, treble and bass adjustments are in front for easy access.

$89 from Altec Lansing, (800) 648-6663, (717) 296-2818. Circle #438

Jensen JPS45

You'll squeeze more volume from these speakers than from the less expensive Koss HD/50's, but turn up the juice too high and you'll get distorted sound. Overall, the 10-watt-per-channel speak-

ers, rated at 120 Hz to 20 kHz for frequency response, are efficient, but lack some clarity and low-range depth. The combination bass-and-treble, balance and volume/power controls are all accessible on the side of one speaker, but the headphone jack is awkwardly positioned at the back, and you're limited to one stereo input source.

$125 from International Jensen, (800) 753-6736, (847) 317-3700. Circle #439

Koss HD/50

With the lowest price in the bunch, you get what you pay for—decent audio and not much more. Keep the conveniently placed front-panel treble and bass-boost buttons depressed, because the HD/50's sound hollow without the extra lift. The 4.5-watt-per-channel speakers have a 150-Hz to 20-kHz frequency-response rating.

$39.99 from Koss, (800) 872-5677, (414) 964-5000. Circle #440

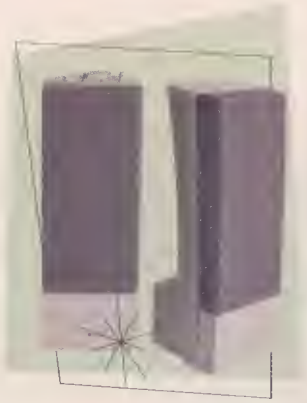
Labtec LCS-3210

If you're a serious gamer on a budget, consider this pair, which deliver Spatializer 3-D sound. The handsome duo claims a 10-watt-per-channel power rating and a frequency-response rating of 48 Hz to 20 kHz. The bass, treble and volume controls sit on the front panel, along with an on/off switch for 3-D sound. The Spatializer technology improves the perspective of certain audio effects, so games' explosions, sirens and so on sound more realistic. It also works well for rock music, but hit the 3-D off-switch for classical pieces, because the technology imposes a false tonality.

$100 from Labtec, (360) 896-2000, http://www.labtec.com. *Circle #441*

NEC AudioTower Speaker System

Here's one of the best budget bargains you'll find. The attractive speakers—which carry a power rating of 8 watts per channel and a frequency-response spec of 150 Hz to 18 kHz—offer full sound, with good midrange response suited to both popular music and CD-ROM soundtracks. You get a large volume dial and three well-designed controls for bass, treble and mixing two audio sources. But crank them up too high and you'll distort the sound.



$99 from NEC, (800) 632-4636, (508) 264-8000, http://www.nec.com. *Circle #442*

Yamaha YST-M15

For playing rock music or listening to explosions in games, these speakers do the job. Their hallmark is the "active servo technology," which essentially improves lower bass response at lower volume levels. The speakers offer a 10-watt-per-channel power rating and tout a frequency response of 70 Hz to 20 kHz. Factor in convenient controls and jacks, and you have a great deal for the money.

$89 from Yamaha, (800) 823-6414, (714) 522-9011. Circle #443

MID-PRICE

Here you'll find mostly three-piece systems—two speakers ("satellites"), and a subwoofer for boosting the bass. You'll get more volume out of these speakers than the entries in the budget group, and enjoy improved sound clarity.

Advent Powered Partners AV370

These speakers' well-rounded sound will satisfy listeners no matter what their taste in music or CD-ROMs. With a rated frequency response of 50 Hz to 20 kHz, this three-piece setup offers the added convenience of a volume control for its 30-watt subwoofer on the 10-watt-per-channel speakers, so you don't have to reach under your desk to turn down the sound. But the subwoofer's about the size of a legal briefcase, so make sure you have the room for it. Another minor complaint: The system has only one stereo input.

$279 from International Jensen, (800) 753-6736, (847) 317-3700. Circle #444

Atlantic Technology M110/M105 Multimedia System

The M105 speakers and M110 Bass Toaster subwoofer that make up this three-piece set deliver a moderately accurate sound despite the fact that the speakers are rated at a seemingly slim 3 watts per channel; the subwoofer kicks in another 45 watts. While this trio doesn't have the oomph of some other speaker setups, its "colorless" sound and restrained approach should please classical music fans. The speakers sport a frequency-response rating of 55 Hz to 20 kHz, and they have all the necessary controls, a headphone jack and two stereo inputs.

$249 from Atlantic, (617) 762-6300. Circle #445

Bose MediaMate Multimedia Computer Speakers

No review of speakers would be complete without an entry from Bose, a respected name in home stereo speakers. Alas, that heritage and a price of about $300 for the MediaMate Multimedia Computer Speakers add up to a big disappointment—it seems you're paying more for the name than for the sound.

While the speakers are attractive—angled slightly upward, with volume and mixing controls and a headphone jack on the front—and deliver nicely rounded midrange and high tones, there's a noticeable lack of response in the lower ranges, and there's no subwoofer option. Bose doesn't provide a power or frequency-response rating for the MediaMate duo.

$299 from Bose, (800) 444-2673, (508) 879-7330. Circle #446

Multimedia Labs PC Amp-TC-1940-7Sub

If you want to fill your room with the sound of laser blasts and NASCAR racing, look no further. For sheer muscle, this subwoofer-equipped system—which has a frequency-response rating of 35 Hz to 22 kHz and its own external 40-watt-per-channel amplifier—is unsurpassed. The built-in equalizer lets you balance the sound to almost any taste, but note that the rather large speakers and tall subwoofer make the system best suited for a wide open space.

$180 from Multimedia Labs, (800) 484-5159, (410) 429-4300. Circle #447

Nakamichi SP-3d

Looking like something out of *2001: A Space Odyssey*, the Nakamichi SP-3d system makes an impression right out of the box. It has two 6-watt-per-channel conical speakers and a small, 13-watt subwoofer that resembles a flying saucer. You can easily adjust the volume and balance for all three pieces from the top of one of the speakers, though that's about it as far as controls go. In addition to a 60-Hz to 20-kHz frequency-response rating and clean, crisp sound all around, the setup provides 3-D audio through SRS (Sound Retrieval System) technology.

$189 from Nakamichi America, (800) 421-2313, (310) 538-8150. Circle #448

PROFESSIONAL

If you or your kids compose and play MIDI (Musical Instrument Digital Interface) music on the computer, look at the two pairs of speakers in this group. Their rugged cases are designed for the way musicians work: You can regularly move them from the den, where they hook up to your computer for MIDI composition, to the basement, where the band rehearses. Instead of the mini RCA jacks common to most speakers, our selections in this category have full-size jacks that let you easily plug in your MIDI instruments without an adapter. And each speaker has its own built-in amplifier, allowing you to hook up your MIDI instrument to just one of the pair.

Advent Powered Partners AV570

Of the two entries in this group, these AV570 speakers offer the subtler sound reproduction. Still, this set's 35-watt-per-channel amps have power to spare, and the rated frequency-response range zooms upward from 40 Hz to 25

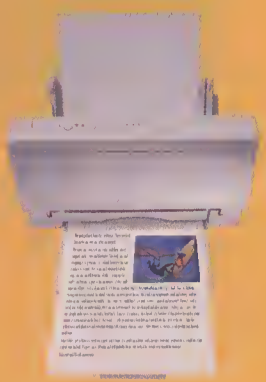
Take it with you. Everywhere.

Kodak digital technology that fits in your pocket. Pretty liberating, huh? It's the newest in our award-winning line of digital cameras – the *Kodak Digital Science*™ DC20 camera. Download, enhance, manipulate and e-mail images on your PC or Macintosh. (Exclusive software is included on CD.) No film processing. No scanning. Translation: No waiting. So anyone can have fun sharing Kodak moments *in* moments. Once they reach the ground.

E-mail it to your friends.

Make your friends jealous.

ANY $350 CAMERA CAN CAPTURE THIS PICTURE. ONLY ONE CAN SET IT FREE.



Make your words come to life.

Show them what you did today.

THE DC20 DIGITAL CAMERA

Stretch yourself.

To find out more about the DC20 digital camera and other *Kodak Digital Science* products, visit us at

Kodak ds digital science™

http://www.kodak.com/ or call 1-800-508-1531 in the U.S., 1-800-465-6325 in Canada for the dealer nearest you.

TAKE PICTURES. FURTHER.

Kodak, Digital Science and the ds monogram symbol are trademarks of Eastman Kodak Company. © Eastman Kodak Company 1996.

CIRCLE READER SERVICE NUMBER 58

The only time

it slows down is to take important calls.

A speakerphone. A voice-mail system. A fax machine.

Combine them all with a fast, reliable U.S. Robotics modem, and you have a communication device which borders on the frightening.

The Sportster® Voice 28.8/33.6 Kbps Faxmodem gives you everything you need to access the information you want, when you want it.

Retrieve fax and voice messages remotely. Provide multiple-box voice mail. Create an extensive fax-on-demand menu. And, of course, access online services with remarkable speed.

Plus, unlike other modems, the Sportster Voice gives you the proven compatibility and reliability of Sportster, the number one selling modem in the world. It's easy to install and it's Microsoft Plug and Play certified.

What's more, the exclusive *Connections* CD-ROM offers you a wide selection of online products for both home and office.

To learn more about the Sportster Voice, or any of the other ways U.S. Robotics takes the limits off how fast you can get what you want, call us at 1-800-DIAL USR, or visit us at www.usr.com.

U.S.Robotics®

NO LIMITS

U.S. Robotics, the USRobotics logo and Sportster are registered trademarks of U.S. Robotics. All other product names are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies. Product specifications subject to change without notice. Contact your U.S. Robotics representative for current product information.

kHz. With a lot of up-front presence, the AV570's are great for rock music, handling volume particularly well. Like the competing Roland MA-12CP's, however, they're weaker in the lower bass range. You'll find separate treble, bass and volume controls on the front of each attractive, wedge-shaped speaker.

$299 from International Jensen, (800) 753-6736, (847) 317-3700. Circle #449

Roland MA-12CP

These heavy-duty speakers are bargain-priced for this category and built to last, with metal cases, rubber bumpers and shielded power cords. Featuring a 10-watt-per-channel amplifier in and separate controls on each speaker, the MA-12CP's can easily handle the demands of a variety of equipment, from a MIDI instrument to a microphone. The sound is bright and loud, making the pair an excellent choice for performers. But they lack evenness across the entire audible frequency range, so don't expect much when you play multimedia titles. Roland doesn't list a frequency-response range for the MA-12CP's.

$220 from Roland, (213) 685-5141, http://www.rolandus.com. *Circle #450*

AUDIOPHILE

Connoisseurs of classical music and die-hard devotees of roaring multimedia games, bend your ears this way. Of course, you'll need the budget to fund your passions if you hope to take home a speaker set whose sound is matched only by its good looks.

Altec Lansing ACS500

The company's top-of-the-line multimedia speakers stand 18 inches tall, with controls in plain sight on the front. These towering speakers deliver Dolby Pro-Logic Surround Sound when you're playing Dolby-encoded software or music CDs. The speakers pump out a powerful 22.5 watts per channel, the subwoofer adds an additional 40 watts, and

vers
What's the CAPITAL of NORWAY?
What COLORS are used in the FLAG of BELGIUM?
n
w
e
s
How tall is the EIFFEL TOWER?
CIRCLE READER SERVICE NUMBER 30

It's one of the best reading and spelling programs for kids. And at $19.95, the arithmetic isn't so bad either.

One of the five best of 1995.
–Parents Magazine

A cut above most storybook software.
–Newsweek

Even the simplest exercises succeed as engaging fun for kids 4 to 8.
–TV Guide

Great for the 4-yeor-old who is just storting to leorn sounds, os well os the 9-yeor-old.
–Family PC

Best Home Leorning Software for Children, Finalist.
–Software Publishers Assaciation Awards

A very special price. For a very limited time. Help Snoopy overcome writer's block. Enter the school spelling bee. Join the whole Peanuts Gang in seven fun activities. There's great tv animation. Classic cartoon strips. Not to mention Snoopy's first 1,000-word picture dictionary. For more information, see your local retailer, or call us 24 hours a day at **(800) 814-3530**. Or visit our AOL site **(KEYWORD:VIRGIN)**. Only hurry. Before it's history. Available at Best Buy, CompUSA, Computer City, Egghead Software, and other places, too.

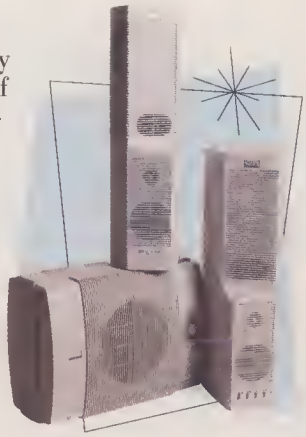
SOUND AND VISION

Copyright © 1996 Virgin Sound and Vision. All rights reserved. Virgin™ and Virgin™ are used under license from Virgin Enterprises Limited. PEANUTS © United Feature Syndicate, Inc.
*With purchase at participating retailers while supplies last.

CIRCLE READER SERVICE NUMBER 61

the system offers a rated frequency response of 32 Hz to 20 kHz. Even if you don't plan on playing Dolby-encoded material for the surround-sound effect, these sonically well-rounded speakers are equally suited to rock, jazz and classical music; a built-in pink-noise generator helps balance the sound.

$399 from Altec Lansing, (800) 648-6663, (717) 296-2818. Circle #451



Eminent LFT-11

Lovers of high-end audio will find this system hard to resist. The speakers can be tilted for the best listening position, and they use a planar magnetic design—a technology common in expensive home stereo speakers, but unique among multimedia speakers. Instead of the standard cone drivers, here you'll find a thin aluminum diaphragm. The actual speakers are set in oak frames and are only about 1 inch thick. Including a conventional-looking subwoofer, the set possesses remarkable sensitivity, reacting well to even the subtlest changes in music. To power the LFT-11 system, with a rated frequency response of 35 Hz to 20 kHz, you get a separate 15-watt-per-channel digital stereo receiver, which houses all the controls. Granted you'll be making a hefty investment, but there's no question you'll get uncompromising audio.

$790 from Eminent, (904) 575-5655, http://www.eminent-tech.com. *Circle #452* •

Robert J. Atkinson specializes in writing about multimedia. You can send him your comments on this story by e-mail at adcnoid@aol.com.

If You Don't Know the Answers

to the Preceding Questions...

ASK YOUR KID!

Waldo is going to show your child where in the world the fun is with "Where's Waldo? Exploring Geography." Along the way, kids discover the people and places of our world while developing problem-solving and critical thinking skills. In this exciting CD-ROM adventure, kids 5-12 search for missing athletes so they can help Waldo save the Wacky Worldwide Games. "Where's Waldo? Exploring Geography" lets children—and parents—learn more about the world around them. Including what the capital of Norway is.

WarnerActive

IMAGINATION PILOTS

For nearest dealer call: 1-800-MY-DEALER
or Visit Us On The Web:
http://www.warneractive.com

Where's Waldo? Exploring Geography ©1996 Warner Music Pilots, Inc. Where's Waldo? ©1996 Martin Handford. A WarnerActive title Published by Inscape. All rights reserved.

CIRCLE READER SERVICE NUMBER 29

Presenting Masterpieces...
by You!

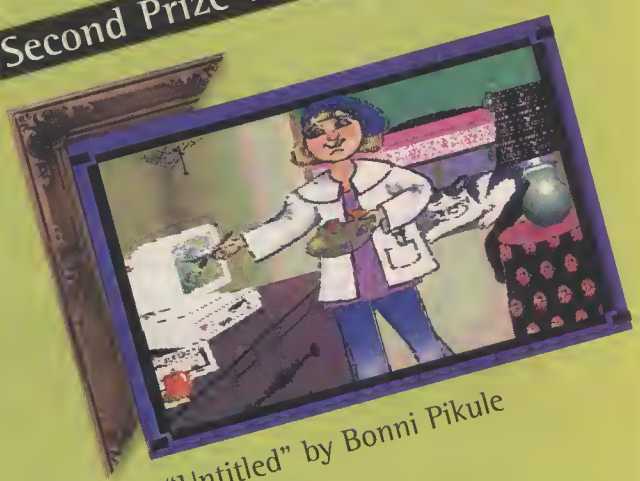
With all of the excellent entries we received for the Paint Your Masterpiece Contest, it was definitely difficult to decide on the winners. But HomePC judges studied and surmised, considered and critiqued, and finally selected the entries that showed that their makers are truly masters of imagination.

HomePC applauds the artists who created these award-winning masterpieces!

First Prize Winner

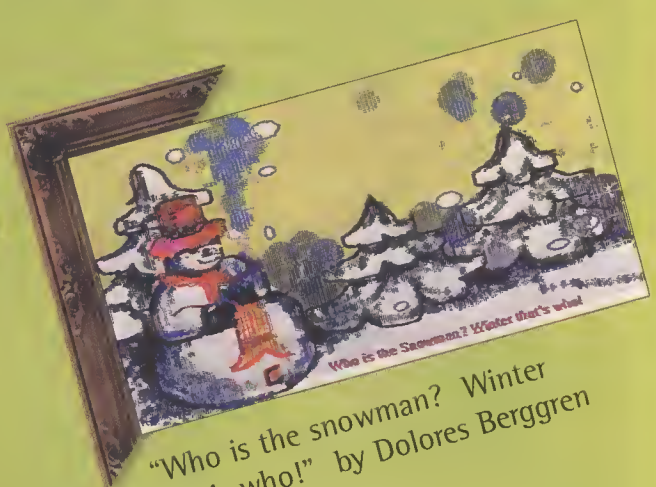
"Hollyhurst" by Jan Larkin

Second Prize Winner



"Untitled" by Bonni Pikule

Third Prize Winner



"Who is the snowman? Winter that's who!" by Dolores Berggren

HOMEPC

FRACTAL DESIGN CORPORATION

The Dabbler FAMILY Art Gallery.

Fractal Design
Dabbler 2

- Easy-to-Use Multi-Media Art Tutors!
- Super Realistic Natural-Media® Tools!
- Cool New Flipbook Animation!
- For Mac/Power Mac and Windows 3.1 & 95!

Fractal takes you farther.

The Art Tutor Inside Your Computer • Only $69! • For CD-ROM •

Want family fun with a learn-to-draw program that's much more than a toy? Dabbler™ 2 from Fractal Design brings out the inner artist in users from 5 to 95. • Dabbler teaches art skills from basic drawing to advanced cartooning via interactive, multi-media Tutors. Like how-to books come to life on your screen, self-pacing Tutors are filled with entertaining sound and action. A collaboration between Fractal Design and renowned Walter Foster Publishing, Dabbler's Tutors combine the best of traditional art instruction with eye-popping innovation. • Flipbook animation is the newest and coolest addition to Dabbler's amazing array of image-enhancing techniques and special effects. Dabbler also dazzles with hundreds of Natural-Media tools, stencils, stock photos and clip-art selections. • Start Dabbling today and watch your gallery grow!

To order, or for more information, call 800-297-COOL, Ext.1332.

http://www.fractal.com

FRACTAL DESIGN CORPORATION

Copyright 1995 Fractal Design Corporation. All rights reserved. Natural-Media is a registered trademark and Fractal Design Dabbler is a trademark of Fractal Design Corporation. Walter Foster is a registered trademark of Walter Foster Publishing. All other trademarks are the property of their respective owners.

The Dream Team: Olym

work.com/bo/html http://www.womensports.com/olympics http://www.sydney.olympic.org http://pathfinder.com http://www.atlanta.olympic.

As the world gathers in Atlanta, the Net is

www.atlantagames.com http://www.olympic.nbc.com http://www.sportsnetwork.com/o.html http:/

www.atlanta.olym

pics AND THE Web

BY CHARLES BOWEN

Every four years, I go camping with my wife, Pamela—in front of our TV. For two weeks we live on popcorn and pizza, and indulge our obsession with the Summer Olympics. When we're not fixed on the tube, we're rummaging through newspapers and magazines, sharing articles we've found about the Games.

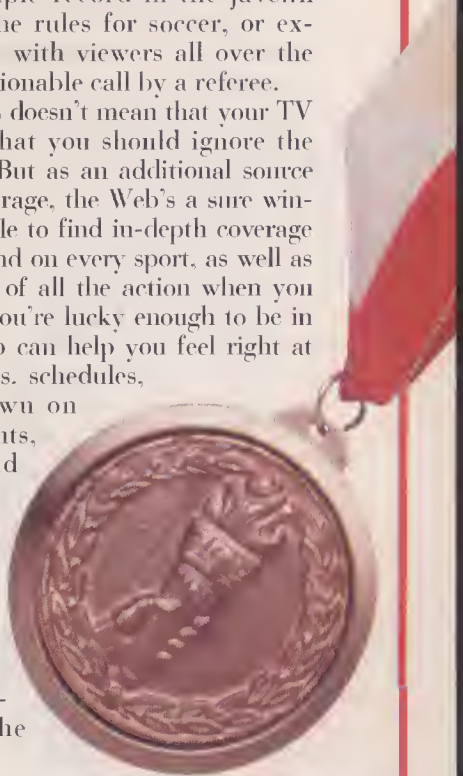
It's funny, but the event that brings the whole world together makes us antisocial: we forsake colleagues, friends and family. However, this year we're inviting one newcomer to our quadrennial retreat: our computer. When the athletes come out to play July 19 to August 4 at the XXVI Olympic Games in Atlanta, the Internet's World Wide Web will offer an unprecedented opportunity for spectators like us to feel a part of the action.

already caught up in the Games; here's where to go for the gold.

Even with hundreds of hours of TV time and enough articles in print to stretch from Atlanta to the Games' birthplace in Athens, Greece, "comprehensive" Olympics coverage outside the Web is a misnomer. Consider that the Atlanta Games will include more than 560 sessions in 26 sports; gold, silver and bronze medals will be handed out to some 1,933 winners. Due to the constraints of time and physical space, TV and print media can't possibly cover it all; they naturally focus on the most popular events, such as swimming, gymnastics, and track and field—but even then the coverage can be fairly superficial.

This year, the Olympic universe is well represented in cyberspace, and you're in control. Even if it's the middle of the night, you can hook into the Web to find out who holds the Olympic record in the javelin throw, review the rules for soccer, or exchange opinions with viewers all over the world on a questionable call by a referee.

Of course, this doesn't mean that your TV is obsolete, or that you should ignore the morning paper. But as an additional source of Olympics coverage, the Web's a sure winner. You'll be able to find in-depth coverage of and background on every sport, as well as real-time results of all the action when you want it. And if you're lucky enough to be in Atlanta, the Web can help you feel right at home, with maps, schedules, and the lowdown on hotels, restaurants, nightspots and tourist sites.



Pamela and I first discovered sports information on the Web after the Barcelona Games in 1992. We'd become fans of the

volleyball competition and were wondering how we could follow the U.S. team after the closing ceremonies. We discovered a number of Web sites, including Sports Network and Women-Sports (see box on facing page), that offered coverage of the sport, and we were hooked. We've been surfing the Net all spring to feed our Olympic frenzy, and sure enough, we've found a number of gold-medal sites.

The official story

The obvious place to start a cyberspace tour of the Atlanta Games is the official 1996 Centennial Olympic Games home page (*http://www.atlanta.olympic.org*), operated by IBM in conjunction with the Atlanta Committee for the Olympic Games. The site promises perhaps the most comprehensive coverage on the Net once the competition gets under way, and has been gearing up for months with coverage of Olympic preliminaries. For instance, it offers continuing coverage of the Torch Relay, which brings the Olympic flame—flown to North America from Greece in April—from Los Angeles to Atlanta. If the torch bearer is passing through your area, you can look here to find the date; if you can't make it to the route in person, you can at least view photos posted here of some of the 10,000 runners taking part.

The official Olympics home page will post results of every event for the two weeks of the Games.

Along with photos of Atlanta's Olympic Park and background on all the Olympic sports—including the official rules—you can search the schedule by sport, date or venue. When the Games begin, you'll be able to find results of all events, so if you missed the opening round of the basketball tournament on TV, or you're a devotee of a sport such as badminton that never makes it to the evening highlights or morning edition, this page will have the scoop.

Of course, Olympic licensing means money, so it's no surprise the official home page is also Olympic merchandise central, from pins and T-shirts to programs and posters. There's also an area for kids: The Fun Side icon calls up a trivia quiz, interesting "factoids" about the Olympics, and the adventures of Izzy, the computer-generated mascot of the '96 Games.

In Atlanta, the Olympics is the local story of the year, and *The Atlanta Journal-Constitution* is rising to the occasion. You can take advantage of the newspaper's local expertise by visiting its excellent Web site, The Atlanta Games (*http://www.atlantagames.com*), which features coverage written exclusively for the Web. For the past few months it's contained a slew of interesting stories, including the saga of the construction of the Olympic Village and venues, news of preliminaries, and athlete profiles, such as the story of Lance Armstrong and the other American cyclists gearing up for Olympic trials that begin just one week after the grueling Tour DuPont race.

The Atlanta Games site is using the Web's interactivity to build an electronic Olympic Village of sorts, encouraging visitors from around the world to share their views. You can find a pen pal in Atlanta or overseas, or click on Let's Talk to visit a virtual "veranda," where you can post messages to all comers about your favorite Olympic sport or memorable moments from past Games (for a multimedia look at the Summer Games' history, see the box on page 78).

If your PC is equipped with a VRML (Virtual Reality Modeling Language) viewer, you can take a unique 3-D tour of the Olympic Park at the Atlanta Games site. (If you don't have VRML capability, the page links to sites where you can download a VRML viewer for Netscape Navigator 2.0 or a stand-alone VRML browser,

With a special viewer,

you can take a *3-D tour* of Olympic Park.

The Atlanta Journal-Constitution's *Web site has exclusive stories from the local news team.*

plus installation instructions, for free.)

With VRML capability, you can "move" into and around the buildings you see on the screen, and get names and descriptions of points of interest. Granted, it's not as good as being there—like most "virtual reality" on the Net, the tour has a flat, cartoonish quality—but at least you won't have to push through the crowds.

If you're wondering which country is favored in field hockey, which athletes are nursing injuries, or whether steroid use is cropping up as a big issue in Atlanta, chances are you'll find the answers in the Olympic Games area of *Sports Illustrated*'s SI Online at Time Warner's Pathfinder site (*http://pathfinder.com*). All year round, the magazine's seasoned sportswriters post some of the Net's best sports reporting and analysis, and they'll be drawing on their expertise and sources to give you unique perspectives on the Games. And while *Sports Illustrated* hits the newsstand just once a week, the on-line version is updated continuously.

SI Online is not only deep in current events, but also a great resource for Olympic history. Its Olympic Almanac has records dating back to the first modern Games, in 1896. Don't miss the colorful Olympic Timeline, which combines text with photos and illustrations of events and athletes to trace the Games' history. For instance, I didn't realize that political controversy at the Olympics is almost as old as the competition itself. During the opening ceremonies in 1908, American shot-putter Ralph Rose caused an international incident by refusing to lower the U.S. flag in honor of England's King Edward VII, saying, "This flag dips to no earthly king." The timeline also offers tasty trivia—did you know that tug-of-war, pole climbing and mud fighting once were Olympic events?

The site wasn't complete at press time, but SI Online intends to post background on each sport and the venues, as well as other valuable information, as the Games draw near; already up are news reports on the qualifying rounds of top events, construction of the Olympic Park, plans for TV coverage and more. Once the Games begin, you'll find analysis and breaking news on results of the competition in sports from archery to yachting.

Do you know the way to

Athens, Ga.? Get *directions* on-line.

Atlanta raves

If you're one of some 2 million anticipated attendees at the Atlanta Games, don't leave home without visiting the 1996 Centennial Olympic Games site. Its events schedule will help you plan your itinerary, and you can download and

Best of the rest: Olympics news & previews

Search the Web for Olympics-related information, and you may get the feeling there's a site for each of the 2 million people expected in Atlanta for the Games. Below, we highlight four more good places to start; if you're hungry for additional tips, check the list of sites on *HomePC*'s Web page (*http://techweb.cmp.com/hpc/*) and in our Features folder on America Online (Keyword: HomePC).

• Games of the XXVI Olympiad (*http://www.olympic.nbc.com*): Want to set your VCR so you don't miss an event? NBC will post detailed programming schedules of its Olympics broadcasts at this site (though last-minute changes for a live event are inevitable). You'll also find "Athlete of the Week" and "A Day in the Life of an Olympian," which profile individual competitors, as well as live chats.

• The Sports Network (*http://www.sportsnetwork.com/bo/html*): This popular sports site, which boasts a live scoreboard, discussion forums and sports news, has an area devoted specifically to in-depth news about the Atlanta Games.

• WomenSports (*http://www.womensports.com/olympics*): Though dedicated to the achievements of female athletes, this site's special Summer Games area lists all Olympic hopefuls—men and women—by state, and offers news coverage of events and background about women on the U.S. team.

• Sydney 2000 Olympic Games (*http://www.sydney.olympic.org*): If you suffer Olympic withdrawal after the closing ceremonies of the Atlanta Games, check in here for an overview of Australia's plans for the next Summer Games. —*C.B.*

Glittering history

The World Wide Web may be your best bet for breaking Olympics news, but if you want to delve into the past, check out Olympic Gold from Discovery Channel Multimedia ($39.95, Windows 3.1 CD-ROM, Macintosh CD-ROM; 800-889-9950, 317-579-0413, *http://multimedia.discovery.com/*).

This authoritative account of the first 100 years of the Summer Games is licensed by the U.S. Olympic Committee and the International Olympic Committee. It uses photos, videos and text to bring to life all the drama from the past 25 Olympiads.

The main menu is divided into five sections:

Athletes, Nations, The Games, History and Events. There's also a trivia game and a searchable database. Help and map buttons are always available, but you probably won't need them; navigating the program is easy. Printing the text is a snap, too.

Trivia buffs can find out when volleyball became an Olympic sport (1964), how many world records were set at the 1988 Summer Games in Seoul (21), which nation has won the most medals (the United States, with 1,897) and much more.

Ever wonder about the Olympic flag and rings? Choose Symbolism from the History menu. This section will also tell you the story behind the official mascots, and that the Olympic Motto—*Citius, Altius, Fortius*—means Swifter, Higher, Stronger.

The Athletes section contains bios of more than 15,000 competitors who've won medals in the Games since 1896. And the disc reaches Olympic heights with in-depth stories of 100 greats—told using audio, video and photos—including track-and-field stars Jesse Owens and Evelyn Ashford, decathlon greats Bruce Jenner and Jim Thorpe, swimmers Mark Spitz and Janet Evans, and gymnasts Nadia Comaneci and Mary Lou Retton. *—C.B.*

print detailed directions to each venue, giving you a head start if you're unfamiliar with Atlanta or attending an event that will be held outside the city (other Olympic locations include the Ocoee River in Tennessee, and the Georgia cities of Columbus, Savannah and—where else?—Athens). While tickets to most major events are long gone, you might luck out and find some stray tickets through the site.

The *Journal-Constitution*'s Atlanta Games page offers a wealth of travel tips, tour ideas and hotel information. You'll find suggestions from the locals for surviving the downtown traffic and crowds, and information on the Metropolitan Atlanta Rapid Transit Authority—complete with an interactive map and details on how to reach events by mass transit.

Also on the Atlanta Games site's menu is the inside word about the city's top eateries, tips on nightlife and concerts, suggestions for tours around town and background on other attractions, such as day trips to Civil War landmarks. If you're having trouble finding a hotel room at the last minute, there's advice on renting an apartment, condominium or home; a list of companies offering private housing rentals; even information on campgrounds with space available.

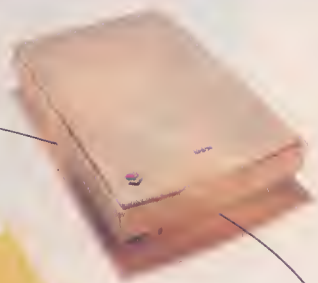
As for us, we'll be camped out in front of the TV at home. We'll have all the great moments in our sights, but if the announcer says there's a stirring upset in volleyball brewing while the cameras remain fixed on a track event, or we

Visit **Sports Illustrated***'s site for ongoing news and analysis of the on-field competition.*

want to keep tabs on a tennis match when the telecast switches to gymnastics, it's good to know those events will be in our sites, too. ●

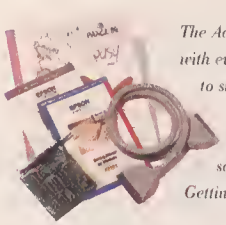
Charles Bowen is a HomePC *contributing editor. His latest book,* Modem Nation *(Random House), is being published this month. Send him comments on this article by e-mail at* cbowen@aol.com.

It scans 16 million colors. It reads text. It makes grown-up people say "whoa" a lot.



INTRODUCING THE EPSON ACTIONSCANNER II. THE PERSONAL SCANNING SYSTEM. FOR UNDER $549.

Ever dazzled people with a newsletter? How about a layout that really made an impression? Want to? In that case, there's a scanner out there with your name on it. As it happens, it also has our name on it. The Epson ActionScanner II. With remarkable ease and speed, it takes words and pictures from home, the office—the world—and injects them into your computer with all the visual power of 24-bit color and 2400 dpi of knife-sharp resolution. The word, we're told, is "awesome." Call 1-800-BUY-EPSON ext. 3300, or visit our Web site at http://www.epson.com.



The ActionScanner II comes with everything you need to start scanning, including image editing, OCR software and an Epson Getting Started manual.

YOU'VE GOT TO SEE IT IN EPSON COLOR.™

MSRP. PC or Mac compatible. Epson is a registered trademark of Seiko Epson Corp. All other trademarks or registered trademarks are the properties of their respective holders. Do not scan published material without permission of the copyright holder. ©1995 Epson America, Inc.

HOW TO GIVE

Whether you want to protect your PC from viruses or guard against system crashes, speed up the time it takes to retrieve a file or remove the preschool software your child has outgrown, you need utilities—special programs designed to keep your computer running at peak performance and help you avoid problems.

Complaints about the lack of high-quality utilities in Windows 3.1 pushed Microsoft to improve certain tools built into Windows 95, its latest PC operating system. Four bare-bones utilities from Windows 3.1 and DOS 6.22 have been beefed up in Windows 95: Backup, which copies files that are on your hard drive; DriveSpace, which compresses files to make more room on the drive; Disk Defragmenter, which reorganizes scattered files; and ScanDisk, which looks for file fragments and corrupted files that needlessly consume space on your hard drive. You'll find these four System Tools in the Accessories group under the Windows 95 Programs icon, unless you bought your PC with Windows 95 already installed; in that case, you may be missing the Backup utility and possibly DriveSpace (see the sidebar on page 82).

Windows 95 also adds some new tools. The Recycle Bin lets you retrieve files you've deleted by mistake—as long as you haven't emptied it. And the Uninstall wizard, accessible from the Control Panel, guides you through the steps to remove Windows 95 programs (it won't help with Windows 3.1 or DOS holdovers).

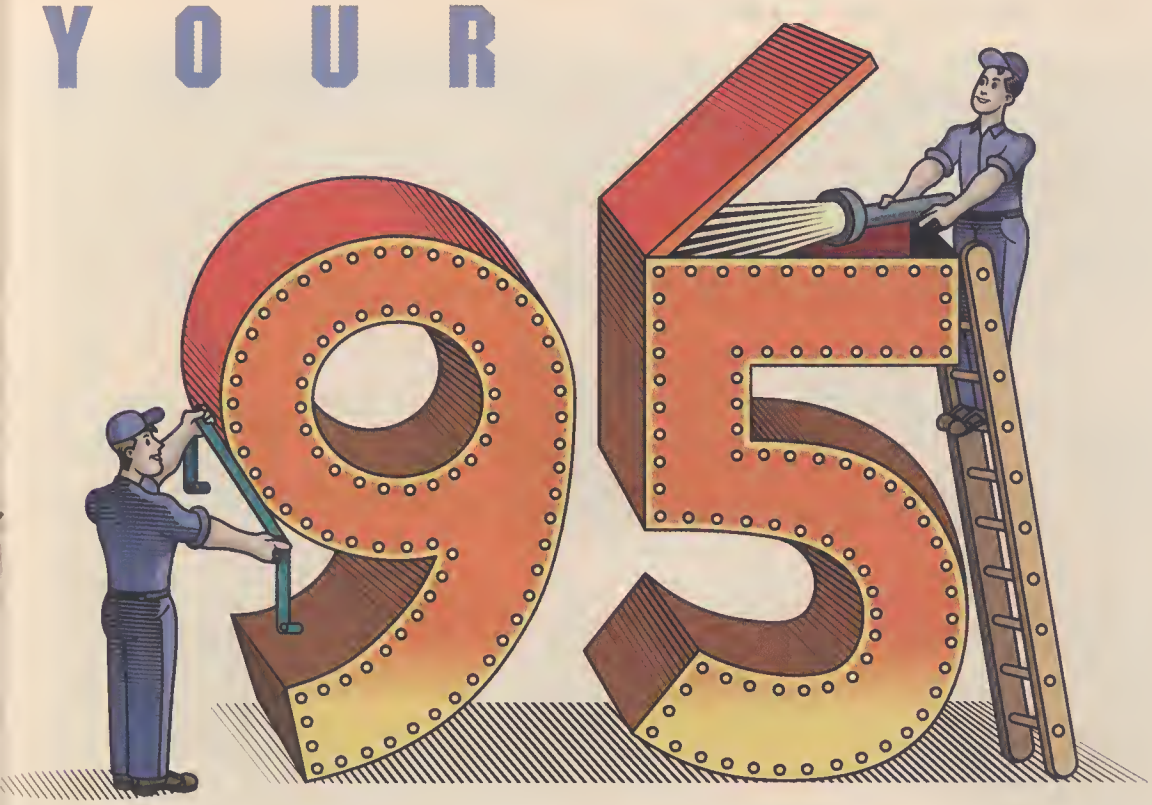
But you'll be disappointed if you think you've found utility utopia in Windows 95: The operating system offers no anti-virus protection, and neither the new nor the improved tools are as thorough as utility software sold separately.

And yet, having the right utilities is extremely important. Every day, the number of viruses that can prey on PCs multiplies; some reports peg the number of active viruses at 10,000 and up. In addition, the complexity of the latest software, the surging capacity of today's hard drives and the sheer number of programs that many of us install demand peak performance from our computers.

If you think you're safe because you dutifully invested in utility software for Windows 3.1 or DOS, think again if you're upgrading to Windows 95—utility programs for the older systems won't work. Many will crash, while others won't be able to access or scan information in Windows 95.

Into the breach step new tools designed for Windows 95 that make caring for your PC easier than ever before. While you could spend a small fortune on utility software—dozens of programs crowd store shelves, each claiming to do one or two things better than the rest—don't fall for the hype. Your PC toolbox needs only a few essential utilities, which we'll profile below.

YOUR 95 PC A TUNE-UP



MICROSOFT'S OPERATING SYSTEM OFFERS BUILT-IN UTILITIES, BUT SPECIALIZED SOFTWARE DOES A BETTER JOB. SEE HOW 10 EASY-TO-USE TOOLS HEAD OFF PC BREAKDOWNS. BY MICHAEL J. ZULICH

To learn how often you should use them, see the sidebar on page 87.

For starters, virus protection is a must. From the innocuous Stoned virus, which sends friendly countercultural messages to your screen, to the lethal Jerusalem B virus, which can wipe out all the programs and data on your hard drive in seconds, any computer is vulnerable to attack—whether from a disk you borrow from a friend or take home from work, or from a file you download to your hard drive from a bulletin board, the Internet or an on-line service, or as an e-mail attachment. And while viruses of the 1980s and early 1990s infected only program files, newer strains attach to Word documents and template files.

Most anti-virus utilities claim to detect and kill more than 5,000 viruses, generally running in the background so you don't have to interrupt whatever you're doing at the computer. But new viruses pop up all the time, so anti-virus software must home in on a constantly moving target. To keep current, most anti-virus programs offer regular updates, which are practically as important as the programs themselves.

If you use Word, be sure to choose anti-virus software that automatically scans document and template files as well as program files. The

Illustrations by Peter Hoey

best of the anti-virals also can check compressed files, so you don't have to wait until a file is decompressed, or expanded for use, to see if it's carrying a virus.

Norton AntiVirus and VirusScan for Windows 95 are both solid programs that meet all the criteria above; each can detect more than 7,500 viruses. Their quarterly disk updates are pricey—$39.95 a year for Norton's, $149 for VirusScan's—but you can download monthly updates for free from the respective companies' Internet sites and bulletin boards, as well as from various on-line services.

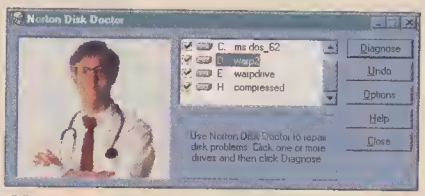
Another strong choice is PC-cillin 95, which can identify some 6,200 viruses. Quarterly updates on disk cost as little as $19.95 for the first year, or you can receive monthly updates from the manufacturer's Internet site or bulletin board. The program won't scan your document and template files automatically, but you can direct it to do so.

DEFRAGGING DISKS

When your PC is new, all the blocks of data that make up the programs and files on your hard drive are stored neatly in order, like books on a well-maintained library shelf. But as you work with your files over time, open spaces, or sectors, are created on the hard drive. When you store a file, some pieces of data will be deposited into these open sectors. If there aren't enough contiguous sectors for an entire file, parts of it may be stored separately, in sectors a short distance away or in a far corner of the drive. When this happens, it takes more time to retrieve a file—it's like trying to get dressed when your pants are in the bedroom, your shirt in the kitchen, your socks in the attic and your shoes in the basement.

The Disk Defragmenter in Windows 95 works well to restore order if the fragmentation isn't serious. But if you make a daily habit of storing and eliminating files—say you constantly save and delete e-mail messages—you need a more sophisticated defrag utility.

Norton Utilities for Windows 95 does the trick: Its Speed Disk feature is especially efficient at putting all your programs and files in order. And Speed Disk can run in the background, allowing you to use the PC while it's being defragged. Although Windows 95's Disk Defragmenter also works in the background, it slows other programs, and defragging your entire hard drive can take hours. As a bonus, Norton will defrag your all-important Windows swap file, which ensures that multitasking works efficiently—an extra step the Disk Defragmenter doesn't take.

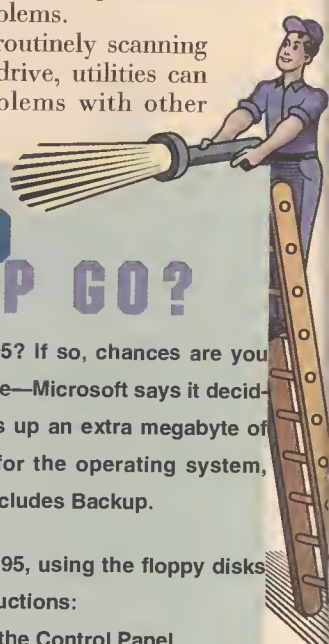


Norton's Disk Doctor is on call to examine your drive after a crash.

Another set of problems can result when your PC crashes or is shut down improperly—for example, when there's a power failure, or if your dog trips over the cord. When files close improperly, they can send "trash"—useless file fragments—to the hard drive, often taking up precious space and decreasing the efficiency of your system.

Windows 95's ScanDisk utility helps, but Norton Utilities' Disk Doctor does a more thorough job. If you've partitioned your C: drive—say, you've made it into drive C: with a password for yourself and drive D: with a password for your daughter—Norton will run through both partitions and fix any problems.

Besides routinely scanning your hard drive, utilities can detect problems with other



WHERE DID BACKUP GO?

Did you recently buy a new PC with Windows 95? If so, chances are you don't have the Backup utility. This isn't a mistake—Microsoft says it decided not to burden buyers with a tool that chews up an extra megabyte of hard drive space, so the default installation for the operating system, which computer manufacturers typically use, excludes Backup.

To add Backup, you need to reinstall part of Windows 95, using the floppy disks or CD-ROM packed with your computer. Follow these instructions:

1. Click on the Start button, then select Settings and open the Control Panel.

2. Double-click on the Add/Remove Programs icon.

3. Click on the tab marked Windows Setup. Then highlight "Disk Tools" and click on the Details button.

4. Click on the checkbox next to "Backup," and be ready with your disks or CD-ROM. Once Backup is installed, click on Start again, then select Programs, Accessories and System Tools; Backup should now appear as one of the tools.

Your PC may be missing DriveSpace as well; follow the same steps to install it, clicking on the checkbox next to "DriveSpace" instead of "Backup" in step 4.

If you're planning a Windows 95 upgrade, selecting the custom installation will give you the option to include these utilities or skip them. —*M.Z.*

WHEN IT COMES TO DESIGNING THE PERFECT COPIER FOR SMALL BUSINESS, WE TAKE IT VERY PERSONALLY.

INTRODUCING THE CANON PC 720

At Canon, helping your small business work more efficiently is something we don't take lightly. That's why we designed the Canon PC 720. It has many advanced features to maximize productivity while minimizing down-time. The PC 720 provides zero warm-up time and auto shut-off for energy efficiency, as well as a 250-sheet front-loading paper cassette. But the PC 720 has two other features that we personally think are the best in the business — our Single Cartridge System and our On-Site Repair Service. Since just about everything that can run out or wear out is in our Single Cartridge System, it provides virtually maintenance-free copying. And should your PC 720 happen to need service, our free On-Site Repair Service will come to your office, and fix it on the spot. For a limited time, we'll even send you a bonus cartridge good for approximately 1,500 copies, when you buy a PC 720. All of which makes this Personal Copier perfect for your small business. For more information call **1-800-OK-CANON** ***anytime,*** or visit us at **http://www.usa.canon.com** on the Web.

Come see the Canon Greater Hartford Open Golf Tournament June 24 - 30 or watch it on CBS (June 29 - 30)

Canon

Available at these and other fine retailers:

OfficeMax STAPLES BEST BUY Office DEPOT

Details for On-Site Repair Service inside carton. On-Site Repair Service good for one year from dete of purchase. Warranty one year limited parts and labor. Bonus cartridge offer 4/15/96 -7/15/96. © 1996 Canon U.S.A., Inc.

CIRCLE READER SERVICE NUMBER 11

Featuring a unique compilation of royalty-free† music clips, Corel® Stock Music Library is the convenient and cost-effective way to add an interesting musical element to your multimedia presentations or product demonstrations. The library features music clips of three varying lengths to help you save on editing time. The ten CD-ROMs included offer 352 minutes of original melodies and encompass 21 different music categories. Ranging from corporate to classical, rhythm and blues to ambient and with 103 individual tunes to choose from, Corel® Stock Music Library offers music for every occasion.

COREL® STOCK MUSIC LIBRARY

Over 100 Royalty-Free† Stock Music Clips

INCLUDES 21 CATEGORIES OF MUSIC

- Adult Contemporary
- Ambient
- Americana
- Choral
- Christmas
- Classical
- Corporate
- Country & Western
- Global Affairs
- Industry
- Jazz
- Latin & Caribbean
- Lifestyle
- New Age
- Pop/Dance
- Rhythm & Blues
- Rock/Metal
- Science & Nature
- Sports
- Various
- World Music

Use Corel® Stock Music Library clips with:

- Digidesign Session
- Digidesign Sound Designer II
- Digital Audio Lab EdDitor Plus
- Innovative Quality Software SAW Plus
- Macromedia Deck II
- Macromedia SoundEdit
- Passport Designs Alchemy
- SEK'D Samplitude Studio
- Sonic Foundry Sound Forge

...and other sound-editing programs

$39.00*

High-quality, original music in CD Audio and WAV file formats

†Royalty-free rights do not include public performance rights.

LEOPOLD MUSIC

Corel is a registered trademark of Corel Corporation in Canada, the United States and/or other countries.
All other product and company names are trademarks or registered trademarks of their respective companies.

Since 1982 ComputAbility Consumer Electronics

Call Now! 1-800-554-1635

KUR-0231-US

*US$ plus applicable taxes.

Enter the Corel® $3,000,000 World Design Contest! (September '95 to July '96)
To receive a faxed copy of the contest rules and an entry form, please call:
1-613-728-0826, ext. 3080, Document # 1125.
To leave a message:
1-613-728-0826, ext. 81609.
To send a fax: 1-613-728-2891.

COREL®
http://www.corel.com
Call now for faxed literature!
1-613-728-0826 ext. 3080
Document # 1099

CIRCLE READER SERVICE NUMBER 15

hardware, with the system files your PC needs to launch Windows 95, and with individual programs, such as a word processor, spreadsheet or game. The Device Manager, accessible from the Windows 95 Control Panel, will report on the status of your hardware components. For example, it will tell you if a driver for your fax/modem is working incorrectly, and will alert you to ways you can try to fix it.

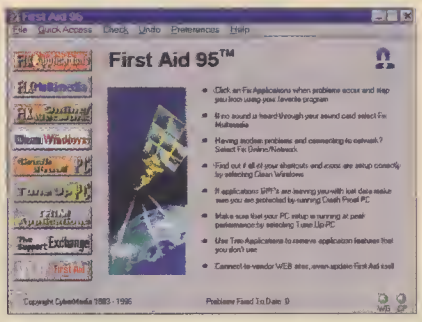
But many glitches elude the Device Manager. For example, your fax/modem may be operating, but at a painstakingly slow pace. Norton Utilities' System Doctor examines 80 system checkpoints, including hardware, and rectifies many of the more subtle problems that can slow your system.

WINPROBE CLEANS SYSTEM & PROGRAM FILES TO RELIEVE STARTUP WOES.

TROUBLESHOOTING

To keep your PC running in peak condition, you need to give it periodic shots in the arm. There are several utility programs that can help; while they all have similar tools, each package focuses on some specific fixes.

WinProbe does a yeoman's job of cleaning your program and system files—the files Windows 95 requires in order to run, which are filled with markers directing the operating system to recognize your programs. Trouble is, if you delete a program from your hard drive and fail to remove some of those markers, Windows 95 will cruise



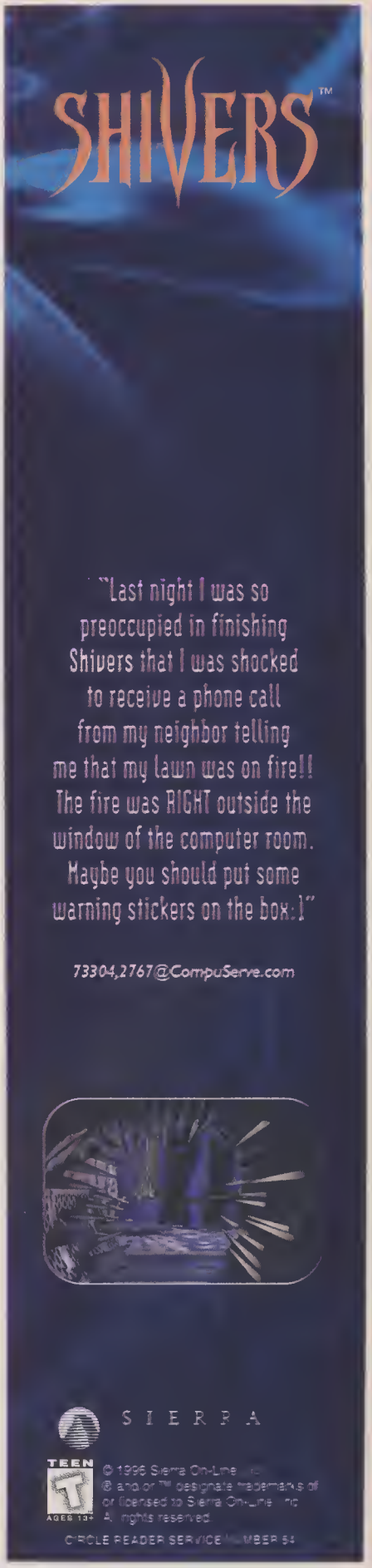
First Aid 95 can dial up Microsoft's Web site to get recent Win 95 fixes.

fruitlessly around your hard drive looking for the program. In some cases, your PC won't start up, or it will shut down improperly; in others, it will boot up, but at a snail's pace. WinProbe tracks down these problems and gets rid of files (those with *.ini* or *.dll* extensions) you no longer need.

WinProbe can also determine: if you have sufficient RAM available to run the programs you've installed; if your software cache—a segment of RAM that manages frequently used data—is large enough; and if hardware components are running at maximum efficiency. In addition, WinProbe can confirm whether your PC has all the muscle you thought you bought—if you question whether your video card really sports 2 megabytes of memory, put WinProbe on the case.

Another handy tool is First Aid 95 Deluxe, which can tweak your programs to improve performance. Every time you modify a program's toolbar or change the colors on your desktop, you make changes to the Registry, a massive and critical system file. After a series of changes, you may end up with redundant entries. First Aid leads you through the steps to clean out any duplicate instructions that reside in your programs and the Registry.

First Aid will also check the settings that launch every program you've installed to ensure they're set for optimum performance. And its CyberFix feature includes a wizard that will contact Microsoft's Web site and download the latest Windows 95 updates.



HOT OFF THE PRESS

GAME OF THE YEAR
-PC ENTERTAINMENT

ACTION GAME OF THE YEAR
-PC ENTERTAINMENT

BEST SCI-FI/FANTASY SIMULATOR
-COMPUTER GAMES STRATEGY PLUS

BEST PC CD-ROM GAME
-VIDEOGAME ADVISOR/ CYBERACTIVE

ROMMIE AWARD
BEST TWITCHWARE TITLE
-CD-ROM TODAY

MECHWARRIOR®2
31ST CENTURY COMBAT
FEEL THE BURN

ACTIVISION®

DOWNLOAD THE MECHWARRIOR® 2 DEMO AT HTTP://WWW.ACTIVISION.COM

ACTIVISION IS A REGISTERED TRADEMARK OF ACTIVISION, INC. © 1995 ACTIVISION, INC.
MECHWARRIOR, BATTLETECH, BATTLEMECH AND 'MECH ARE REGISTERED TRADEMARKS OF FASA CORPORATION. © 1995 FASA CORPORATION. ALL RIGHTS RESERVED.

CIRCLE READER SERVICE NUMBER 4

GIVE YOUR WIN 95 PC A TUNE-UP

What if your PC has problems starting up after you install a new hardware component or program? First Aid can come to your rescue here, too. Each time you shut down your computer, the utility's Retro-Fix feature takes a snapshot of your PC's configuration—everything from the colors on your Windows 95 wallpaper to the details about your peripheral devices. Faced with a system snafu, you can start your PC simply by restoring the previous configuration. If the problem occurred after installing a new program, chances are you can use First Aid's database of more than 2,000 software companies to reach the manufacturer's Web site for technical support.

CRASH-PROOFING

If you're a Windows user, you're well acquainted with the dreaded General Protection Fault, which locks up a program, sometimes forcing you to restart your PC and causing you to lose the active file. Unfortunately, GPFs are still lurking in Windows 95, but now there's software to intervene: First Aid 95 traps GPFs and lets you back out of your program so you don't lose your work.

The utility can't guard against everything, but it's almost foolproof. It starts automatically when you launch Windows 95, and filters every task you ask the PC to perform. First Aid also provides a pop-up list detailing errors it encounters during a GPF; just click on the AutoFix button to repair them.

Indirectly, Norton Utilities attacks the GPF problem, too. It constantly scans the hard drive looking for the problems that can cause GPFs in the first place; the System Doctor makes the necessary fixes.

FILE RECOVERY

Occasionally, you may drop a file into the Recycle Bin by mistake, or decide days later that you'd like to

SCHEDULING MAINTENANCE

nce you buy the tools you need to keep your computer in the pink, how often do you have to use them? Just follow this checkup schedule, and your PC will remain robust.

Backup: As a rule of thumb, back up your hard drive at least every three months; if you have a home business or a number of important files—perhaps you're writing a book—consider backing up weekly, or even daily.

Crash-proofing: Run a utility that can fight General Protection Faults by standing guard in the background at all times.

File management: Archive or uninstall programs whenever you want to free some space on your hard drive—just be sure to use a utility that identifies the proper files to remove.

Hardware maintenance: Defrag your hard drive once a week; run diagnostics to detect and fix problems monthly.

Tune-ups: Perform hardware and system-file tune-ups anytime you make a major change to your system configuration, such as adding hardware, or installing or deleting programs.

Virus protection: Run a utility in the background at all times to trap and destroy any potential viruses. —*M.Z.*

Internet Made Easy helps you select the service provider that's right for you! (software included)

NETSCAPE NAVIGATOR

NETCOM

SPRYNET

CompuServe

AMERICA Online

PsiNet

Also includes Net Nanny and more...

It's called **INTERNET MADE EASY** for a reason.

Save Time, Money, and Frustration!

Whether yau're new to the Net ar o seosoned Web surfer, yau'll find whot yau want foster. Internet Mode Easy osks for your interests then recammends the top Web sites ond best Internet services for yau. It's like hoving yaur own personal Internet consultant. You get the infarmotion yau want without wosting your time.

- Answer o few simple questians and Internet Made Eosy points the woy to the tap sites for you to explore on the Web.
- Persanalized News, Weother, Sports, Stacks, Trovel, Entertainment... ond much mare!
- Organize the Internet the way yau like it for faster, easier access.

For more infarmatian ond ta order the softwore, call 1·800·US·ONLINE.
Get Internet Mode Easy for just $39.95. Satisfoction *guaranteed*...

It's thot Simple!

Call Today!
1-800-US-ONLINE
www.usonline.com

© 1996 US Online, Inc. All rights reserved. US Online and Internet Made Easy are trademarks of US Online. All other trademarks are properties of their respective owners.

rescue a file you thought you no longer needed. If you haven't emptied the Recycle Bin yet, you're safe, thanks to Windows 95's "undelete" feature. Simply double-click on the Recycle Bin, highlight the file you want to rescue, and from the File pull-down menu, select Restore. Windows 95 will recapture the file and place it in its previous directory or subdirectory, or allow you to create a new one.

But you're out of luck if you've already emptied the Recycle Bin, right? Not if you have Norton Utilities. Its UnErase feature lets you reclaim a file even after you've emptied the Recycle Bin.

BACKUP

How often have you been told to back up your hard drive? It's advice worth repeating—all the virus protection and disk and file management in the world won't prepare you for a day when your hard drive unexpectedly conks out.

Windows 95 includes Backup,

SHOPPER'S GUIDE

Here's how to get more information on the Windows 95 utility software mentioned in this article.

CleanSweep 95
Quarterdeck, (800) 683-6696, (310) 309-3700, http://www.qdeck.com
$29.95 (Windows 95) *Circle #462*

Colorado Backup
Hewlett-Packard, (800) 451-4523, (970) 669-8000, http://hpce988.external.hp.com/cms/index.htm
$25 (Windows 95) *Circle #463*

First Aid 95 Deluxe
CyberMedia, (800) 721-7824, (310) 309-3700, http://www.cybermedia.com
$59.95 (Windows 95, Windows 95 CD-ROM) *Circle #464*

Norton AntiVirus
Symantec, (800) 441-7234, (408) 253-9600, http://www.symantec.com
$79.95 (Windows 95); $39.95 for quarterly disk updates; free monthly updates from Symantec's Internet site, BBS and various on-line services. *Circle #465*

Norton Utilities for Windows 95
Symantec, (800) 441-7234, (408) 253-9600, http://www.symantec.com
$119 (Windows 95), $129 (Windows 95 CD-ROM) *Circle #466*

PC-cillin 95
TouchStone Software, (800) 531-0450, (714) 969-7746, http://www.checkit.com
$49.95 (Windows 95); $19.95 for quarterly disk updates in the first year, $44.95 thereafter; free monthly updates from TouchStone's Internet site and BBS for one year, $34.95 thereafter. *Circle #467*

Seagate Backup
Seagate Software, (800) 327-2232, (407) 333-7500, http://www.seagate.com
$99 (Windows 95) *Circle #468*

VirusScan for Windows 95
McAfee, (800) 332-9966, (408) 988-3832, http://www.mcafee.com
$65 (Windows 95); $149 for quarterly disk updates; free monthly updates from McAfee's Internet site, BBS and various on-line services. *Circle #469*

WinCheckIt 4.0
TouchStone Software, (800) 531-0450, (714) 969-7746, http://www.checkit.com
$49.95 (Windows 95) *Circle #470*

WinProbe4
Quarterdeck, (800) 683-6696, (310) 309-3700, http://www.qdeck.com
$44.95 (Windows 95) *Circle #471*

Note: Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

Your mission is to unravel the mystery behind the Majestic's star-crossed voyage.

Majestic™ Part 1: Alien Encounter is now at your favorite retailer or call 1-800-PIRANHA.

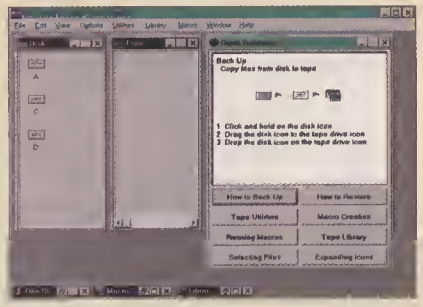
PIRANHA INTERACTIVE PUBLISHING

Available for Windows® or Macintosh®

Piranha Interactive Publishing, Inc.
1839 W Drake, Suite 8, Tempe, AZ 85283
Phone: 602.491.0500 Fax:602.491.8990

CIRCLE READER SERVICE NUMBER 47

a well-honed utility produced by the Colorado Memory Systems division of Hewlett-Packard, but it allows unrestricted backup only to certain kinds of tape drives—models that connect to a floppy disk controller, and that are manufactured by Colorado Memory,



With Colorado Backup, you won't be stuck with limited tape drive options.

Conner Peripherals, Iomega or Wangtek. If you own a tape drive made by a different manufacturer, or if you have a parallel-port or SCSI drive, your only option with Backup is to copy your files to floppy disks—and bear in mind that it requires more than 800 floppies to back up 1.2 gigabytes' worth of files.

Also, several important functions you may well want are missing from Windows 95's Backup program. For instance, you can't schedule a backup to run automatically at intervals you determine.

If you're not satisfied with the features in Windows 95's Backup, there are several attractive alternatives. Seagate Backup, for instance, fully accommodates external drives, including parallel-port drives and SCSI devices, and it will run backups according to the schedule you determine. Moreover, the on-screen wizard makes the whole process easy. You may not even need to buy Seagate Backup separately; most tape drive manufacturers include a copy of the program (previously known as Arcada Backup) with their products.

Colorado Backup, an alternative tape drive backup utility, offers the same features as Seagate Backup, but with the familiar feel of a Windows 95 program.

UNINSTALLERS

You can do a complete backup to create more room on your hard drive, but sometimes all that's needed is a little nip and tuck—you can either uninstall entire programs you no longer need, or archive files and programs to floppy disks to use later. The danger, though, is that you could knock out innocuous-looking files that Windows 95 will require to run other programs. Conversely, you may neglect to delete files you don't need that are eating up space on your hard drive.

Suppose you want to remove an old copy of Excel for Windows 3.1. You may be tempted to simply nix the Excel folder and send its contents to the Recycle Bin. But chances are you'll miss dozens of small files related to Excel that are scattered about the drive. The Uninstall utility included with Windows 95 (accessible from the Control Panel by double-clicking on Add/Remove Programs) won't be much help—the wizard recognizes only Windows 95 programs.

USING AN UNINSTALL UTILITY KEEPS UNNEEDED FILES OFF YOUR DRIVE.

That's where a program such as CleanSweep 95 comes in handy: It quickly finds and deletes not only Windows 95 programs, but also those written for Windows 3.1 and DOS.

If you just want to remove su-

APPLICATION KILLERS

KILLER APPLICATION

Millions of PC users have dealt with the hassle of *removing* applications just to get a little extra disk space. But now, there's a revolutionary new program that gives you all the space you need, whenever you need—without uninstalling a thing.

Infinite Disk automatically compresses infrequently accessed files and applications, moves their contents to the storage media of your choice (floppy, tape, Syquest, Zip, file server, whatever), and leaves the file definitions on the hard disk for future reference.

Competitive Upgrade: Step up to Infinite Disk for the killer price of just $19.95*

When you need an old file, just click on its icon (yes, it's still there). You never have to reinstall applications, because they never got uninstalled in the first place. And if you need lots of space fast? Just tell Infinite Disk how much, and Space Wizard will take care of the rest.

Best of all, you can get this new killer application at a truly killer price. Call 1-800-CHEYINC and press 5 or visit our Web site today to trade up to Infinite Disk for just $19.95. That's a savings of $60 off the suggested retail price. But hurry, this offer ends July 31, 1996.

Infinite Disk. It's the killer application that gives your hard disk a whole new life.

Windows Sources Stellar JUNE 1996

CHEYENNE
Expect nothing less.

1-800-CHEYINC, press 5
World Wide Web: http://www.cheyenne.com/infinite.html

©1996 Cheyenne Software. All rights reserved. Cheyenne is a registered trademark, and Infinite Disk and Space Wizard are trademarks of Cheyenne Software. Other product names used herein are the trademarks of their respective owners.
*Shipping & handling additional.

CIRCLE READER SERVICE NUMBER 67

perfluous files from your hard drive and store them for safekeeping, either CleanSweep or WinCheckIt will do the job. Both search for rarely used, duplicate and old files, and compress them in ZIP format for archival storage. WinCheckIt's Clean & Zip feature also provides a ZIP file manager, which lets you examine the contents of a compressed file if you've forgotten what's inside. And you can specify the files you want to eliminate—say, any Word documents that haven't been opened in six months. (WinCheckIt also provides a number of tune-up tools.)

Norton Utilities has a similar feature: Its Space Wizard lets you locate old, duplicate or unnecessary files and archive them away from the hard drive. And First Aid has a feature-by-feature uninstaller, which is helpful if you want to regain some hard drive space by deleting, say, the grammar-checker in your word processor.

USE UTILITIES WELL AND YOUR PC WILL PURR LIKE A CONTENTED CAT.

One of the best features of all these utilities is that you don't have to be a computer technician to use them. For the most part, you do nothing more than click on a tool and sit back as it does its job automatically—whether it's protecting your PC from viruses; helping it work more efficiently; preventing, diagnosing or fixing problems; backing up your hard drive; or keeping your files neat and clean.

Even with "friendly" Windows 95, a computer can kick like a mule if you don't give it the proper attention. But if you keep just a few utilities in your toolbox—a "Swiss Army Knife" package such as Norton Utilities; a tune-up tool such as First Aid 95 Deluxe, WinCheckIt or WinProbe; a system broom like CleanSweep to keep your hard drive tidy; and any of the anti-virus and backup programs mentioned above—you can make your PC purr like a contented cat. •

Michael J. Zulich frequently writes about technology. He lives in Brooklyn, N.Y. You can send him comments on this story by e-mail at 102631.1314@compuserve.com.

IN TIMES LIKE THESE, WE SHOULD ALL TIGHTEN OUR BELTS.

"Vince and Larry"℠ © 1985 U.S. DOT

In this fast-paced, fast-track world, everyone should buckle their safety belts and buckle them firmly. Because you never know when you might need a little extra security.

YOU COULD LEARN A LOT FROM A DUMMY.℠
BUCKLE YOUR SAFETY BELT.

Ad Council A Public Service of This Publication

U.S. Department of Transportation

The #1 Best-Selling Landscape Design Software

UNTIL NOW, IT WAS REALLY HARD TO VISUALIZE YOUR ULTIMATE GARDEN.

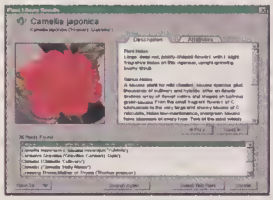
New 3D Landscape 2.0 is the easiest way to design your dream landscape and see it in realistic 3D—right on your PC!

Whether you're starting from the ground up, or remodeling your existing landscape, 3D Landscape 2.0 makes it fun and easy to explore the possibilities before you plant—while expending no more energy than it takes to click your mouse!

Find the perfect plants fast!

With *Plant Selector* you can search an extensive database of more than 800 plants to find the perfect tree, shrub, groundcover, flowers and decorative plants (including annuals, perennials and bulbs) that will thrive in your yard. You can "virtually plant" each one and see how it fits with your new brick pathway—all in realistic 3D.

CREATE *your new landscape with ease and explore different designs instantly.*



CHOOSE *from an extensive database of 800 trees, shrubs and flowers that makes it easy to find the perfect plants for your design.*

Available at fine retailers including: Egghead Software, CompUSA, Babbages, Borders Books and Menards

3D LANDSCAPE 2.0 FEATURES

Realistic 3D Views allow you to see and experience your designs.

Walkabout™ takes you on a virtual walk through your garden.

Expandable 800 Plant Database helps you find the perfect plants, plus add your own.

Seasonal Change and Growth Over Time show your landscape in the future.

Shadow Caster reveals sun and shade throughout a day or year.

Multimedia Reference provides professional advice to plan and construct a beautiful and practical yard.

1995 Outdoor Choice HOMEPC 100 Top Products

Editor's Choice Top 100 1995 HomePC

Literary Market Place Award for Technical Achievement & Innovation 1995

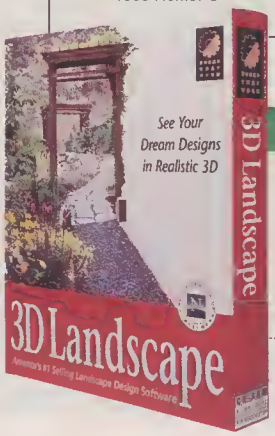
Now your green thumb can see the future.

Seasonal Change shows you how your landscape's color will change, to assure your garden will look beautiful throughout every season of the year. *Growth Over Time* allows you to see how trees will grow—to make sure they never overgrow their space. And *Shadow Caster* gives you a preview of where shadows will fall, so you know your home and garden will always be protected from over- or underexposure to the sun.

Take a virtual Walkabout™, 3D Landscape's exclusive way to experience your design like never before. As you actually "walk through" the landscape you've created, you'll get a true-to-life view of how your plants, flowers and structures will relate to walkways, pools, walls and most importantly, your home.

Landscaping has never been this insightful and easy to do yourself. Try 3D Landscape 2.0 today. And discover how really visualizing your landscape before you plant can be a wonderful growing experience.

NETSCAPE NAVIGATOR N INCLUDED



TRY IT RISK-FREE!

Call 1-800-569-6110

You can try out 3D Landscape risk-free for 30 days. Pay only $59.95 plus shipping and handling with your Visa, MasterCard or American Express card. If after 30 days you are not completely satisfied, send back the product and we will refund the full purchase price.

Use discount code 404

Visit our Web site for more information: **http://www.btw.com**

BOOKS THAT WORK

Visionary Home & Garden Software

System Requirements: 486/66 or higher IBM PC or compatible, Windows® 95 or Windows® 3.1, 8 MB RAM, 10 MB free hard disk space, VGA graphics (256 colors), CD-ROM drive (double speed or higher).

Copyright ©1996 Books That Work. Books That Work and the Books That Work logo are trademarks of Books That Work. Trademarks are property of their respective holders.

CIRCLE READER SERVICE NUMBER 8

learning to play music 𝄞 *at your home computer*

DUET YOURSELF GUIDE

Let's face it—I'm no concert pianist. I do love music, though; I relax by playing piano, and the idea of learning a new instrument had intrigued me for a while. That it was finally time to get started dawned on me just before sunrise in a budget-busting hotel room a stone's throw from Disney World. I was comforting our feverish 18-month-old son while his twin brother, also sick, slept fitfully nearby. As my husband felt our 4-year-old's forehead to see if she, too, had caught the bug, I realized it's silly to depend on a one-week vacation to dissolve a year's worth of job stress and parenting pressures.

By Shelley Cryan

I vowed then, with Mickey Mouse as my witness, that when we returned home, I'd treat myself to guitar lessons—a regular, calming activity that would help keep my psyche in tune, just as piano lessons had five years earlier.

At that time, I'd tried setting up appointments with a teacher, but scheduling conflicts led to a number of canceled sessions; that's when I first discovered music-instruction software. My computer was on call whenever the mood struck me; freed from worries about squeezing prearranged lessons into my hectic weekly calendar, I wound up practicing more, and I made steady progress.

Whether you want to learn how to play piano or guitar—or improve your technique for either instrument—software can help. Unfortunately, if you're

Photograph by Chris Wade

interested in the violin, clarinet or another musical instrument, we haven't yet turned up any instructional software. It's too bad, because the systems can be quite valuable. The best programs "hear" what you play, monitor your progress and suggest ways to improve. Most are geared to teens and adults, but some, like the Piano Discovery System from Jump!Music, are designed just for kids (for more information, see Best Buys in the January 1996 issue of *HomePC*).

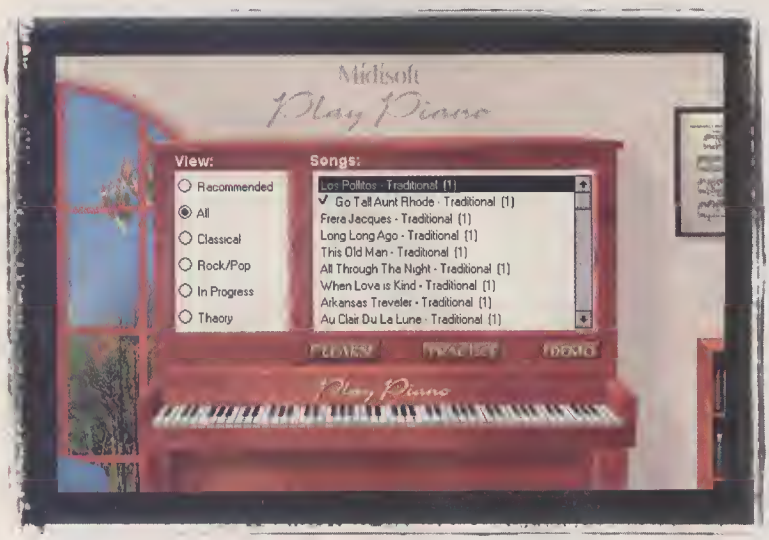
MIDI KEYBOARDS PRODUCE DIGITAL CODE THAT SOFTWARE 'HEARS' AND CRITIQUES.

Grand piano lessons?

Several software programs teach piano; some concentrate on theory, some focus on playing skills, and some tackle both. Regardless of the approach, before you begin your lessons, you have to hook a MIDI (Musical Instrument Digital Interface) keyboard into your computer. (If you don't have a MIDI keyboard, see the sidebar on the facing page for tips on shopping and installation.) A MIDI keyboard sports white and black keys just like a piano, but the keys produce digital code that tells the software what notes you're playing and the duration of each note. You hear the notes either through the keyboard or your speakers.

Play Piano makes it easy to memorize songs, but skimps on technique.

I studied piano with Practica Musica, one of the few programs that worked with a musical



keyboard in the early '90s. It's still a good choice if you want to learn to read music, explore theory, and fine-tune your ability to identify notes by ear. The current version (for the Mac only) includes a thorough, well-written textbook, which introduces concepts that are reinforced by software-based demonstrations and exercises. Most screens show music notation at the top and a keyboard below.

But Practica Musica glosses over the drills that help you develop the physical skills needed to play piano. Even more disappointing, it offers few songs to practice. So I bought my own sheet music, and after a year of on-and-off lessons, I was able to play tunes that my family recognized on the first try.

If tickling the ivories at parties is your goal, Play Piano, for the PC, is a better bet: It's designed for the recreational musician, so the lessons are quick and fun. Pick a tune from the 69 built into the program, and Play Piano teaches you how to play it. Songs range from the very easy "Go Tell Aunt Rhode" to the intricate "Flight of the Bumblebee."

The main screen shows a player piano with song titles listed on the roller. Click on a title, then select either a demonstration or a lesson. The lesson screens show a music score at the top and a piano keyboard below it. Animated hands play each tune, so you can master the fingering. Using narration, videos and other examples, Play Piano patiently coaches you through the song, section by section, pointing out trouble spots in your performance by highlighting passages in the music score, and suggesting ways to do better, such as by slowing the tempo.

The main problem with Play Piano's approach is that you can simply memorize the songs, never developing the skills you need to sight-read or play by ear. While Play Piano has screens full of theory instruction, they're too easy to ignore.

If you want a balanced learning experience, the program Piano, also for the PC, deftly blends music theory with physical practice. The Piano series consists of four courses, each featuring 250 lessons that you complete in sequence.

After each concept is introduced and explained, you must answer multiple-choice questions or play something on your keyboard to demonstrate your understanding before advancing to the next tutorial. If your answer is wrong or you play a selection incorrectly, Piano supplies hints until you get it right.

The lessons progress very slowly, repeatedly reinforcing the concepts you've learned earlier. At first, you may find this annoying and feel as if you're not getting anywhere, but the method works—it fills the role of traditional practice time, and you'll soon find yourself mastering increasingly difficult songs from the included songbook.

Despite my enthusiasm for interactive piano

Piano stresses repetition—and, like a pop melody, concepts stick in your head.

programs. I'll concede there are some benefits to learning from a live teacher that software can't touch. For instance, these programs may "hear," but they can't see, which makes it harder to learn proper fingering technique. And you're on your own if a tune that catches your ear on the radio isn't in your software's limited repertoire. Finally, an on-screen message of praise for a job well done will never be as encouraging as a teacher's nod and smile.

Guitar picks

I enjoy playing the piano, but when I decided to resume my music lessons, I chose the guitar—a brand-new instrument to concentrate on and just the thing to take my mind off day-to-day stress.

I discovered a few software courses I liked, although they didn't offer the kind of interactive evaluation I sought. eMedia's Guitar Method suits people with no experience, and Play Blues Guitar from Play Music is an exceptional program for more advanced guitarists. Both feature fret-board diagrams showing finger positioning as you play, as well as audio and video clips demonstrating proper technique. I also took a look at a prerelease version of Classic Rock Guitar, a program from Ubi Soft Entertainment that should be available by the time you read this. Students learn to play popular songs such as "Sweet Home Alabama" and "Blowin' in the Wind," strumming along with full accompaniment and vocals that imitate the Lynyrd Skynyrd and Bob Dylan versions fairly well.

The only guitar-instruction program I found that could evaluate my playing the way piano courses do was G-VOX Musician. This hardware/software combo, for both PC and Mac, includes a simple plastic-and-metal sound sensor that attaches with suction cups

Buying a keyboard: five items to look for

If you're shopping for a computer-compatible keyboard, be prepared to spend at least $350 for a good introductory model. Here are three important features you should be sure the keyboard has before you buy:

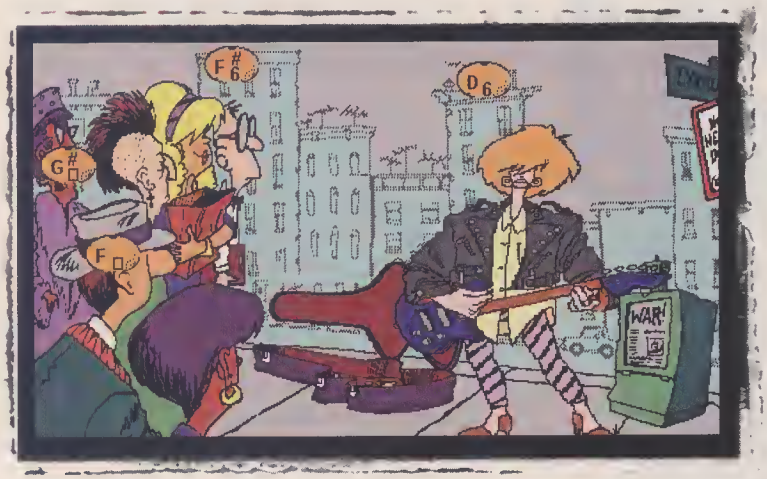
- MIDI (Musical Instrument Digital Interface) compatibility. This standard digital format allows the keyboard to communicate with your music-instruction software.
- Full-size keys. Skip models with tiny keys; you'll have a hard time retraining your fingers when you graduate to standard piano keyboards.
- Polyphony. Be sure the keyboard can sound multiple notes simultaneously. That way, you can play chords with your left hand while picking out a melody with your right, or hit a new note while another is still sounding.

Though not necessities, the following two features are recommended if they fit your budget:

- Touch or velocity sensitivity. If notes sound louder when you press the keys hard, and softer when you use a lighter touch, your keyboard will seem more like a traditional piano.
- 88 keys. A standard electronic keyboard usually has 61 keys, which is enough for most people. However, if you want the same number as a regular piano—88—expect to pay a few hundred dollars more.

When you bring your new keyboard home, you shouldn't have any trouble connecting it to your computer. Setup for my Macintosh was no more involved than plugging a MIDI interface box (a card-deck-size device you can buy for $50 to $80 at many computer stores) into my modem port, then using a pair of MIDI cables to connect the interface box to my keyboard. If you have a PC, you won't need a special interface box, but the steps are a bit more involved (consult the documentation that comes with the keyboard or see our December 1995 Nuts + Bolts section for instructions). —*S.C.*

under the strings of nearly any acoustic or electric guitar—though it won't work with the nylon-stringed instruments used by classical guitarists. The sensor's cable plugs into one of your computer's serial ports, with a device called a Belt Pack in between to translate your picking and strumming into a digital format the computer understands. This clever setup detects not only what notes you play, but what string and fret combinations you use to produce those notes.



In G-VOX's game Tour, you play for a tough crowd: Hit a sour note and you might get hit with a lemon.

The instruction software, called Riffs, has several song libraries. When you're ready to practice, choose from among the three beginners' song collections that come with the program, or one of the more advanced libraries devoted to playing styles such as blues or folk. All the screens look similar: The top half shows a music score written in standard notation as well as in tablature (an alternative notation that's often used for guitar and banjo), while the bottom shows a guitar fret board positioned horizontally. You'll find VCR-like controls just beneath the fret board; click on the Play button, and you'll hear music through your computer's speakers and see dots dancing along the fret board, showing you where to place your fingers on your guitar.

After you've studied the way the program plays a selection, you'll be ready to tackle the song yourself. Click on the Step Play button and the program will listen to you play. As you progress through the selection, a bouncing ball moves along the music score to mark where you are. Hit a sour note, and it waits patiently until you find the right one. If you need help, the animated fret board shows you where to place your fingers and which strings to play. There's even a built-in metronome to help you keep the beat.

When you need a break from practice, you can sharpen your skills with an included game called Tour, which casts you in the role of a street performer using your musical wits to dodge fruit thrown by an unruly mob. Each piece of fruit is labeled with a note. If you play that note correctly before the fruit reaches you, the missile disappears. Choke, and your on-screen alter ego gets splattered.

Playing the game brought me back about a dozen years to the time I was studying French at the Sorbonne and, on a lark, played banjo in a Paris Metro station to earn my dinner money. No fruit was thrown, but alas, not many francs were, either.

Today, I'd probably fare a little better. With the G-VOX setup, I learned to play reasonably well. Granted, I'm not holding my breath for the folks at MTV to call, but I started this to relieve stress, so fame wasn't on my agenda anyway. My best audience is my kids, who sing and dance to my guitar strumming—if they like it, why should I fret? ●

Shelley Cryan lives in Tarrytown, N.Y. When she's not writing about computers, she might be found playing guitar, piano, banjo, harmonica, clarinet or kazoo. You can reach her at 71232.3673@compuserve.com.

SHOPPER'S GUIDE

Here's how to get more information on the interactive music-instruction software mentioned in this article.

G-VOX Musician
Lyrrus, (800) 789-4869, (215) 922-0880, http://www.lyrrus.com
$349.95 (Windows 3.1, Macintosh; includes necessary hardware); $19.95-$39.95 for each additional Riffs song library. Circle #453

Piano
Musicware, (800) 997-4266, (206) 881-9797, http://halcyon.com/musicware
$79.95 for each of four courses (Windows 95 CD-ROM, Windows 3.1 CD-ROM). Circle #454

Play Piano
Midisoft, (800) 776-6434, (206) 391-3610, http://www.midisoft.com
$79.95 (Windows 3.1 CD-ROM). Circle #455

Practica Musica
Ars Nova, (800) 445-4866, (206) 828-2711, http://www.ars-nova.com
$140 (Macintosh). Circle #456

Note: Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

You
supply
the
blood
sweat
ideas
coffee
grit
midnight oil

We'll
print
the
budgets
envelopes
proposals
presentations
labels
letters

The
Okidata
OL600e

6 pages per minute of laser class output

600 dpi class output

Windows® 95 and DOS compatible

5 year LED printhead limited warranty

*$399**

1-800-OKI-TEAM x641
http://www.okidata.com

OKIDATA®
a Division of Oki America, Inc

They're your ideas.
We just help.™

Okidata makes a full line of Windows, DOS and Ad[illegible]™ PostScript™ compatible personal business printers. We have 24 years and over 9 million printers worth of experience. Start something. Start anything. We'll finish it. For a full spec sheet, call Fax Back 1-800-654-6651. Ask for document 1014.

*Estimated retail price in the U.S. Actual price may vary. System requirements: 8 MB PC RAM & 8 MB free space on hard drive: Windows 3.1, 3.11, or Windows 95. ©1996 Okidata Reg. T.M., M.D. Oki Electric Industry Co., Ltd. They're your ideas. We just help. T.M. Oki America, Inc. Adobe, PostScript T.M. Adobe Systems, Inc. Windows Reg. T.M. Microsoft Corp.

TEST DRIVE ONE HIGH-PERFORMANCE MACHINE AND YOU COULD DRIVE OFF WITH ANOTHER.

Microsoft Windows 95

INTRODUCING NEC'S "EXPERIENCE THE DIFFERENCE" SWEEPSTAKES. JUST CHECK OUT A NEW READY SYSTEM AT YOUR NEC DEALER AND YOU COULD WIN A BMW Z3 ROADSTER.

INCLUDES THE BEST OF MICROSOFT®

An NEC Ready System brings you the ultimate in multimedia computing. And now, with the "Experience the Difference" Sweepstakes, there's more reason than ever to take one for a spin at your NEC dealer. You could win a hot, new BMW Z3 Roadster, the same car the world's most famous secret agent drove in his last film. Or, you could end up with one of seven Ready Systems or some of the $14,000 of Microsoft products we're giving away.

The NEC Ready System is a virtual collection of cutting-edge components. We've put together the most advanced multimedia features, including a 166MHz Pentium® processor and an NEC MultiSpin® 6X CD-ROM drive. Then there's 16MB EDO RAM and a 2.0 gigabyte hard drive, with incredible storage capabilities*. What's more, on these machines we've included the Best of Microsoft – a premium collection of the top-selling software, including Windows® 95.

The new NEC Ready System offers everything you could want in a computer. And now, with the "Experience the Difference" Sweepstakes, everything you could want in a car.

Look for NEC Ready Systems and Microsoft software at these retailers:

CIRCUIT CITY COMPUSA THE COMPUTER SUPERSTORE FUTURE SHOP DISCOUNT SUPERCENTERS Fry's ELECTRONICS

For information via fax, call NEC FastFacts™ at 1-800-366-0476. MultiSync, MultiSpin and See, Hear and Feel the Difference are registered trademarks of NEC Technologies, Inc. All other trademarks and registered trademarks are the property of their respective owners. © 1996 NEC Technologies, Inc. *These product specifications are not reflective of all Ready models available. Please check with NEC retailers for details. No purchase necessary. Sweepstakes runs 5/1/96-8/15/96. Open to US residents (except Puerto Rico) 18 or older with valid driver's license. Subject to official rules on display at participating retail locations or available by mail. Winners announced on 9/16/96. Prizes: (1) Grand prize: 1996 BMW Z-3 Roadster — (a.r.v. $35,000); (7) 1st prizes: NEC Ready 7610 (or equivalent) system personal computer and 15" NEC MultiSync monitor (a.r.v. $2,278 each); (50) 2nd prizes: Automap Streets Interactive CD-ROM (a.r.v. $50 each) and Automap Road Atlas Interactive CD-ROM (a.r.v. $50 each) (combined a.r.v. $100. each); (50) 3rd prizes: Automap Road Atlas Interactive CD-ROM (a.r.v. $50 each). For official entry form, send self-addressed stamped envelope to: NEC EXPERIENCE THE DIFFERENCE official entry form, P.O. Box 29, Ojai, CA 93024-0029. For winners list or rules, send SASE to: NEC - Winners List or Rules (specify which), P.O. Box 1834, Ojai, Ca 93024-1834. No return stamp for WA & VT for entry request or rules. Odds of winning depend on number of entries. Void where prohibited or restricted by law.

Key #11310

Visit NEC's new web site at http://www.nec.com

SEE, HEAR AND FEEL THE DIFFERENCE.™ NEC

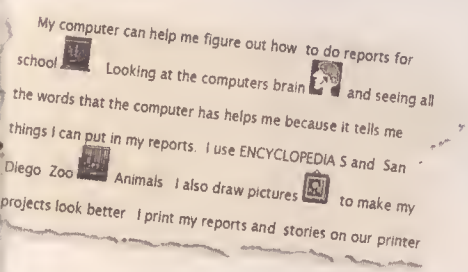
CIRCLE READER SERVICE NUMBER 42

meet the winners!

How can a PC improve kids' education? Three sharp essayists will now get to find out.

By Carol Ellison

Flip on the evening news, and you often get the impression kids use computers only to hunt for pornography on the Internet, or to separate warriors from their internal organs in games like Doom. But read the 500-plus submissions to the annual Computer Learning Contest—co-sponsored by *HomePC* and the Computer Learning Foundation—and you'll get a very different picture: Many



youngsters are serious about using a computer to learn, and are quite aware of the ways it can enrich their education.

A few months back, we invited kids to compose an essay explaining how they use—or would use—a computer to support their learning. The following grand-prize winners stood out in their respective categories for the creativity and presentation of their ideas: Take a bow, Danny Darkoski, 8 (primary school); Kimberly Pitts, 11 (middle school); and Jennifer Stewart, 17 (high school).

Each winner receives a Gateway multimedia PC; a Canon color printer; a Delrina scanner; an American Power Conversion back-up power supply; a one-year Prodigy membership; three CD-ROM games from Interplay; five educational programs of the winner's choice from Davidson & Associates; ClarisWorks; and three software titles from The Learning Company.

Danny's essay, illustrated with copious clip art (see left), detailed all the ways he uses the PC now—from writing stories to developing math worksheets for friends—and explained what he'd like to do next—"talk to kids all over the world from our computer" and "get a lot of information to help with my schoolwork."

Even without a PC at home, Kimberly had "many ideas about what I could invent and do with computers." For starters, she'd use a computer to interview people overseas about their cultures, chart science projects and learn more about animals. And we can't wait to see the PCs she'd design—they'd "come in cool colors!"

Jennifer described the trials that are all too familiar to high-school students without a computer. She noted how access to the Internet would have enriched her learning experience when she had to research and write a 14-page paper on the Great Depression: "I could have had a unique source that provided details of what life was really like during that time." She anticipates using a PC to practice Spanish with a pen pal, compose music and—when she becomes a teacher—spruce up worksheets for her students.

HomePC also awarded second and third prizes in each of the three age groups. For a list of all the winners, their prizes, the grand-prize-winning entries and choice excerpts from other submissions, visit *HomePC* on the Web (*http://techweb.cmp.com/hpc*) or look in *HomePC*'s Features folder on America Online (Keyword: HomePC).

To receive a list of the winners and their prizes by U.S. mail, send a stamped, self-addressed envelope to Computer Learning Winners, *HomePC*, 600 Community Drive, Manhasset, NY 11030. ●

CIRCLE READER SERVICE NUMBER 33

consumer lab

BY JENNIFER ZAINO AND SEAN FULTON

Kings of the road: 2 portables walk away winners

TESTED THIS MONTH

Notebooks

- ★ Canon Innova Book 350CD
- WinBook XP5
- AcerNote Pro Pentium 120
- ★ Toshiba Satellite Pro 400CDT
- Compaq LTE 5200
- Apple PowerBook 5300c/100

So you're thinking about buying a new computer? It doesn't take a mystic to guess what's near the top of your wish list: powerful performance, easy expansion and dynamic multimedia features. But here's something you may not foresee—the dream machine you walk away with won't necessarily be a desktop PC.

Notebook computers are winning over new fans, and it's easy to see why. A crop of lightweight portables now tote a hefty collection of features that once tipped the scales toward the desktop for shoppers: muscular Pentium or PowerPC chips, convenient expansion bays that let you add components at will, quad-speed CD-ROM drives and rich 16-bit sound.

Of course, portability has its price—you'll have to dig a bit deeper into your wallet to buy a feature-rich notebook. While a multimedia desktop PC with a 120-MHz Pentium chip, 16 megabytes of RAM and a 1-gigabyte hard drive may lighten your wallet by just $2,000, expect to part with at least $3,000—and conceivably as much as double that—for a similarly configured notebook. And some staples of new desktop systems, such as a fax/modem and a shelf's worth of included software, are often extras for notebooks, requiring you to ante up more cash.

Photo illustration by Chris Gould

Yet for many people, the value of a laptop's flexibility outweighs the immediate cost. For instance, a notebook computer can help you find more productive ways to spend your time; just try rolling a desktop onto the train to write letters or catch up on your finances during your morning commute. Or, if you've got a home business, a laptop lets you take your company on the road and receive your e-mail away from home. A portable is also a good fit for anyone who lives in a cramped city apartment or likes having options for incorporating a computer into a living space—for example, you can keep your notebook in the kitchen without crowding out your coffeemaker.

To discover how well the latest laptops fulfill their roles at home and on the road, we invited 12 people into the *HomePC* Consumer Lab to give us their impressions of six top manufacturers' cutting-edge notebooks, with 16 MB of RAM and multimedia options (including 16-bit sound and CD-ROM drives). Half of our panel tried three units that sell for less than $4,000: the Canon Innova Book 350CD, the WinBook XP5 and the AcerNote Pro Pentium 120. The other six sampled three models carrying price tags of more than $4,000: the Toshiba Satellite Pro 400CDT, the Compaq LTE 5200 and the Apple PowerBook 5300c/100.

Despite the price differences, don't assume the components you see on a more expensive system's features sheet or in ads will invariably leapfrog over those of a less expensive alternative. For example, you'll find 120-MHz Pentiums in two of the lower-cost units, while a 75-MHz Pentium system sits in the pricier group.

By the same token, you don't have to buy a high-end system to step up from a dual-scan screen to a more advanced active-matrix color display. You'll find active-matrix technology, which delivers a crisp, bright image from a side angle as well as a straight-ahead view (and typically adds about $500 to a laptop's cost), on the sub-$4,000 WinBook XP5.

Of course, sometimes you do get what you pay for. For instance, the active-matrix color display on the close-to-$6,000 Compaq LTE 5200 raises the resolution from 640 by 480 pixels to a sharper 800 by 600. This lets you fit more icons and more usable windows on its 10.4-inch screen than do notebooks with similarly sized LCDs (liquid-crystal displays) running at the lower resolution.

Common to the notebooks in our test group at both price levels is a secondary, or Level 2 (L2), memory cache, which uses very fast memory and boosts system performance by storing your most recently used data for speedy retrieval; this keeps the notebook from having to continually summon the information you need from the slower system memory. An L2 cache helps explain why a 90-MHz system, the Midwest Micro SoundBook IIp, recorded scores far ahead of even 120-MHz laptops in formal benchmark tests we conducted. (We tested the SoundBook IIp for these Lab reviews, but Midwest Micro discontinued production of that model

Chip speed is important, but not the last word in performance—a 75-MHz Pentium unit often kept up with 120-MHz rivals in tests.

Making the grade: How the notebook computers stack up

	Sub-$4,000 Canon Innova Book 350CD	WinBook XP5	AcerNote Pro Pentium 120
Documentation	B+	B	B+
Ease of setup	A	B+	B+
Keyboard	B+	B	B
Overall quality	B+	B+	B
Overall value	B+	B	B
Performance	A-	A-	B
Pointing device	B	A-	C-
Screen quality	B	A-	B
Size	A	B+	B
Sound quality	B	B+	B
Weight	A	A-	B
Overall grade	**B+ (3.55)**	**B+ (3.48)**	**B (3.05)**

before this issue went to press.)

However, bear in mind when you shop that an L2 cache alone won't guarantee peak performance; each of the 120-MHz systems the SoundBook IIp left in the dust had one, too. Performance also depends on the type of local-bus graphics subsystem the notebook uses—either the VESA Local Bus (VL-Bus) or the newer, higher-performance PCI local bus—plus the quality of the unit's components and more.

Some manufacturers have eschewed L2 caches in more expensive notebooks, opting instead to use fast EDO (extended data out) RAM for the system's main memory. This can have a similarly positive impact on a notebook's speed. Toshiba chose this route in the Satellite Pro 400CDT; for a 75-MHz machine—the slowest processor speed of any of the systems we tested—the model did surprisingly well in our benchmark tests; this was particularly true in the Excel test, which puts a notebook's system RAM through the wringer (see chart on page 108).

The most obvious differences between the machines at the two price levels often center on their system designs. For instance, the pricier models are more likely to go the extra mile to make it easy to switch among the devices you can install in the multifunction expansion bay. This bay can alternately hold a variety of devices; you pull out the included drive—usually a floppy—and substitute another device, such as a hard drive, in its place.

Boyi Liu studies computers in school as well as in our Lab; our testers set up the notebooks in our offices, then took them on the road for a week.

Testers who put the more expensive systems through their paces appreciated the extra flexibility some of those units' expansion bays afforded them. For instance, they liked the idea of being able to swap optional items into and out of the PowerBook 5300c/100 bay—a second hard drive, an AC adapter, a magneto-optical drive—without first shutting down the notebook, a convenience not found on any of the other machines. And the Toshiba Satellite Pro 400CDT was the only unit to let testers shelter its CD-ROM drive in the expansion bay while keeping the floppy drive in action (it pulls off this trick by allowing the floppy drive to connect to a special system port as an external device).

While the add-ons available for use in an expansion bay differ from notebook to notebook, our testers were most interested in CD-ROM drives for the bay. Such a CD-ROM drive is standard on the Toshiba Satellite Pro 400CDT and the Canon Innova Book 350CD, and one's available as an option for the Compaq LTE 5200 and the AcerNote Pro Pentium 120.

To meet our multimedia requirement for this Lab, WinBook supplied a CD-ROM drive that's installed in an optional docking station, while Apple provided its external 600e drive, which connects to the PowerBook's SCSI port, but not comfortably—the bulkiness of Apple's 6-by-12-inch drive cramped testers' style. In fact, Apple typically does not advise using the 600e CD-

$4,000 and up

Toshiba Satellite Pro 400CDT	Compaq LTE 5200	Apple PowerBook 5300c/100
A-	B+	B+
A	A-	B+
B+	A-	B
A	B+	B
B+	C	B-
A-	B+	B+
B+	B	B+
A-	B+	B+
A-	A	B+
A	B+	B
B+	A-	B+
A- (3.70)	**B+ (3.45)**	**B (3.31)**

Vital statistics: Prices, specifications and features

	Sub-$4,000	
	Canon Innova Book 350CD	**WinBook XP5**
Manufacturer	Canon USA	WinBook Computer
Price (list/estimated retail)*	$3,249/$2,650	$3,757.94/NA
Processor	Cyrix 100-MHz 5x86	Intel 120-MHz Pentium
Installed/maximum RAM	16 MB/32 MB	16 MB/32 MB
L2 cache	No	256 KB
Hard drive capacity	540 MB	810 MB
Display	10.4-inch dual-scan color	10.4-inch active-matrix color
Local-bus video	VL-Bus	VL-Bus
Video RAM	1 MB	1 MB
Maximum resolution		
Built-in display	640 by 480	640 by 480
External CRT	1,024 by 768	1,024 by 768
Cursor control	Touchpad	TouchPoint pointing stick; optional Alps touchpad, $79.95; optional trackball, $29.95
16-bit sound	Yes	Optional ($79.95)
CD-ROM drive	Internal quad-speed	Optional internal quad-speed (included with docking station)
Built-in fax/modem	No	14.4 Kbps
PC Card slots	One Type III, or two Type I or II	One Type III, or two Type I or II
Power-suspension button	No	Yes
Ports	Audio line-in, audio line-out, mike-in, infrared, parallel, PS/2, serial, video, expansion-device connector	Audio line-in, audio line-out, parallel, PS/2, serial, video, expansion-device connector
Expansion bay	Yes	No
Removable hard drive	No	Yes
Battery	NiMH	Lithium-ion
Weight (including battery)	6.6 lbs.	6.1 lbs.
Height by width by depth	1.9 by 11.5 by 8.9 inches	2.0 by 11.7 by 8.7 inches
Included software	America Online, City Streets, CompuServe, FaxWorks, Flight Disk, NetCruiser, OAG Pipeline, SideKick for Windows 95	Delrina CommSuite 95
Carrying case	Yes	No
Port replicator/docking station	None	WinBook Docking Station with Quad-Speed CD-ROM ($399)
Warranty	1 year, parts and labor	1 year, parts and labor
Tech support	Toll-free, 7 days, 6am-midnight (Eastern)	Toll-free, M-F, 8am-9pm, Sa 9am-4pm (Eastern)
Customer service	(800) 423-2366, *http://www.ccsi.canon.com/*	(800) 468-2162
Reader service	*Circle #401*	*Circle #402*

*Tested configuration, including options. ** At test time, only a 2X CD-ROM drive was available; a 4X model is now shipping.

$4,000 and up

AcerNote Pro Pentium 120	Toshiba Satellite Pro 400CDT	Compaq LTE 5200	Apple PowerBook 5300c/100
Acer America	Toshiba	Compaq Computer	Apple Computer
NA/$2,848	NA/$4,458	NA/$5,899	NA/$4,485
Intel 120-MHz Pentium	Intel 75-MHz Pentium	Intel 120-MHz Pentium	Motorola 100-MHz PowerPC 603e
16 MB/40 MB	16 MB/40 MB	16 MB/72 MB	16 MB/64 MB
256 KB	No	256 KB	No
810 MB	772 MB	1.3 GB	750 MB
10.4-inch dual-scan color	10.4-inch active-matrix color	10.4-inch active-matrix color	10.4-inch active-matrix color
PCI	VL-Bus	PCI	None
1 MB	1 MB	1 MB	1 MB
640 by 480	640 by 480	800 by 600	640 by 480
1,024 by 768	1,024 by 768	1,024 by 768	640 by 480
TrackPad touchpad	AccuPoint pointing stick	EasyPoint II pointing stick	Apple TrackPad touchpad
Yes	Yes	Yes	Yes
Optional internal double-speed ($200)**	Internal quad-speed	Optional internal quad-speed ($399)	Optional external quad-speed ($335)
No	No	No	No
One Type III, or two Type I or II	One Type III, or two Type I or II	One Type III, or two Type II	One Type III, or two Type I or II
Yes	No	Yes	No
Audio line-in, audio line-out, mike-in, infrared, parallel, PS/2, serial, video, expansion-device connector	Audio line-in, audio line-out, mike-in, infrared, parallel, PS/2, serial, video, external floppy drive, expansion-device connector	Audio line-in, audio line-out, mike-in, infrared, parallel, PS/2, serial, video, expansion-device connector	ADB, audio line-in, audio line-out, serial, SCSI, video
Yes	Yes	Yes	Yes
Yes	No	Yes	No
NiMH	Lithium-ion	NiMH	NiMH
6.4 lbs.	7.3 lbs.	7.4 lbs.	6.4 lbs.
2.0 by 11.7 by 9.0 inches	2.2 by 11.8 by 9.0 inches	2.1 by 12.2 by 9.0 inches	2.2 by 11.5 by 8.5 inches
City Streets, Classic Card Games, Personal Organizer	CD Audio, ESS Sound System, Fn-esse, MagicDisc, MCS MusicRack	America Online, CompuServe	PowerBook Mobility Bundle
No	No	Yes	No
AcerDock ($599 without CD-ROM, $799 with CD-ROM); Acer Port Replicator ($99)	NoteDock Enhanced Port Replicator ($399)	MultiBay Expansion Base ($499)	None
3 years, parts and labor	3 years, parts and labor	3 years, parts and labor	1 year, parts and labor
Toll-free, 7 days, 24 hrs	Toll-free, 7 days, 24 hrs	Toll free, 7 days, 24 hrs	Toll-free, M-F, 6am-6pm (Pacific)
(800) 733-2237, (408) 432-6200, *http://www.acer.com/aac*	(800) 999-4273, (714) 583-3800, *http://www.toshiba.com/tais/csd/support*	(800) 345-1518, *http://www.compaq.com*	(800) 767-2775, *http://www.apple.com*
Circle #403	*Circle #404*	*Circle #405*	*Circle #406*

ROM drive while on the road.

As is common with notebooks, you can expand most of these systems by hooking up a docking station or port replicator to the notebook's expansion port. Docking stations generally allow your notebook to come closer to a complete desktop system than do port replicators, which mostly just duplicate your notebook's ports and add a few more to the mix.

Docking stations often include drive bays for add-on units such as backup devices, and sometimes even add network connections. In certain models, such as the Compaq LTE 5200, you can choose other products—Compaq's MPEG and TV Video Adapter, for instance—to hook into the expansion port or install in a docking station.

Although Paul Peterson wants to buy a notebook, he worries about the cost; his group liked the Satellite Pro, but thought its two rivals were too pricey.

All the models in this review sport 16-bit PC Card slots, which accept the credit-card-size devices that bring fax/modem, networking or even additional storage abilities to notebooks. However, these units are not equipped to handle two new developments in PC Cards, called Zoomed Video and CardBus.

The Zoomed Video interface is an extension to the PC Card standard that lets a PC Card send video information directly to the graphics controller without bogging down the processor, resulting in better performance for programs such as games that use MPEG video.

CardBus is a more far-reaching extension to the PC Card standard that promises advances such as faster 32-bit performance. As a general high-performance bus, it provides an important boost in areas where having the greatest speed counts, such as multimedia applications or networking connections.

At press time, notebooks implementing both these new standards in a single PC Card slot were just beginning to trickle into retailers' hands (slots for these standards will accept older PC Cards, too). While neither standard is a must for most people who use a notebook at home today, be aware that at this point, you can't upgrade most current notebook models to support them.

How we tested

Both groups of testers got to know their notebook computers well; after setting up each machine and acquainting themselves with its included software in our Lab, they took each of the three systems in their group home for one week. We asked each tester to carry the notebooks around with them so that they (and their families) could use them at every possible opportunity—on the way to work, at the office, in the evenings to help the kids with their homework and so on.

We asked them to consider their experiences and grade each system

Time trials: Rating the notebook computers' speed

For another view of how well the notebook PCs reviewed here can be expected to handle your computing tasks, we conducted a series of formal speed tests to clock relative performance. The tests, which did not apply for the Apple PowerBook 5300c/100, were developed by lab technicians at *HomePC* and at our sister publication, *Windows Magazine*. The Doom II test highlights each system's hard drive response and its ability to process graphics; the Excel test gives each system's memory and processor a workout. Results are rounded to the nearest second.

	Sub-$4,000			$4,000 and up	
	Canon Innova Book 350CD	**WinBook XP5**	**AcerNote Pro Pentium 120**	**Toshiba Satellite Pro 400CDT**	**Compaq LTE 5200**
Doom II	**7 min., 6 sec.**	7 min., 24 sec.	8 min., 46 sec.	**8 min., 1 sec.**	8 min., 28 sec.
Excel	2 min., 6 sec.	**1 min., 28 sec.**	1 min., 38 sec.	1 min., 28 sec.	**1 min., 17 sec.**

According to the will,
you stand to inherit...

Hey,
is that a ZIP DRIVE
on your desk?

For the nearest dealer, call:
800-818-9728
Or see us at: www.iomega.com

zip drive
$199

What're instant riches compared to a Zip™ drive? Okay, the money would be nice. But you'll need a place for all your financial records. Just connect a Zip drive to your PC or Mac and you've got a secure place for that important stuff. Each Zip™ disk gives you 100 megabytes, so your computer will never run out of room. Plus, each Zip drive is simple to install and use. And, you don't need millions to buy a Zip drive. So put one on your desk. It says you've inherited good sense instead.

The One Drive For All Your Stuff.
Endless storage space.
Portable files. Fast, easy backup.
Hard drive expansion.

100MB disks for $14.95.*
Perfect for all your stuff.
One Zip disk holds
as much as 70 floppies.

BECAUSE IT'S YOUR STUFF.™

iomega.

*When purchased in a qty pack. © 1996 Iomega Corporation. Iomega, the ... ga logo and Zip are trademarks of the Iomega Co... ...prices are estimated street prices ...prices may va...

Staying alive: How long do the notebooks' batteries last?

Before conducting our formal battery tests on the five PC models, we exhausted the power in each laptop, then recharged each one to be sure it began at full energy capacity. We also activated Windows 95's Advanced Power Management feature, which maximizes battery life.

The tests (developed by our sister publication, *Windows Magazine*) access the hard drive repeatedly, which causes the batteries to run down more quickly than they might if you were working normally. The computing time you'll get from a fully charged battery will depend on your work habits. For example, if you're not actively engaging the hard drive, Windows 95 will help extend your battery life by powering down the drive.

While we didn't conduct a formal battery test for the PowerBook 5300c/100, Apple rates it for a four-hour life; we were able to use it for two hours and 45 minutes in informal testing. (Tested battery-life figures below are rounded to the nearest minute.)

	Sub-$4,000			$4,000 and up	
	Canon Innova Book 350CD	**WinBook XP5**	**AcerNote Pro Pentium 120**	**Toshiba Sat. Pro 400CDT**	**Compaq LTE 5200**
Rated maximum battery life	2 hrs., 30 min.	4 hrs.	2 hrs.*	4 hrs.	4 hrs.
Tested battery life	**2 hrs., 5 min.**	1 hr., 58 min.	1 hr., 36 min.	**3 hrs., 3 min.**	1 hr., 21 min.

*With a single battery installed

in 11 areas: documentation, ease of setup, screen quality, keyboard, pointing device, sound quality, performance, size, weight, overall quality and overall value. We also conducted formal tests to further evaluate each model's speed, and battery tests to gauge how long it runs on a single charge.

a surface to reach an icon or option, and then usually activate it with a tap) than eraser-like pointing sticks, though they said the difference was probably not important enough to sway their choice at the store if a model had other appealing features.

They also advise shoppers that if a carrying case is included in the price of the notebook, make sure the bag is big enough to accommodate the notebook *and* all its options before you buy. They didn't see the point of having to pay for a carrying case if you're only going to have to shell out more cash for a roomier replacement.

If a laptop isn't in your immediate plans but you think you might buy one in the future, there are some postscripts to this Lab to remember. As we went to press, a number of companies were issuing teasers about upcoming models with 12.1-inch active-matrix displays (the notebooks in this roundup all had 10.4-inch screens) for roughly $5,500 and ultrathin notebooks for about $2,500. Meanwhile, IBM's new 2-gigabyte-plus notebook hard drive is good news for storage-hungry users (see Hot Stuff!, page 44). But those are subjects for a future notebook test; to see which of today's leading portables moved our testers, check out the reviews beginning on page 114.

If you don't need a notebook today, upcoming innovations include more 12.1-inch color screens as well as $2,500 ultrathin models.

In each price group, one system emerged as a clear winner: The Canon Innova Book 350CD set the pace in the sub-$4,000 group with a grade of B+, while the Toshiba Satellite Pro 400CDT was the champ among the high-end competitors with an A-. Testers particularly applauded the ease with which they could add devices to the Innova Book 350CD and the bright screen of the Satellite Pro 400CDT. They were also pleased with both winners' battery life; the Canon machine ran slightly longer than two hours on a single charge, while the Toshiba entry managed to keep ticking for more than three hours.

After their comparisons, the jury had a few general tips to share with shoppers. First, they were generally more comfortable using touchpads (which let you glide your finger over

For Linda Costa, a case helped the Innova Book 350CD carry the day.

Research and technical assistance provided by Albert Chan, Anne Clifford, Abdul Farooqi, Patrick Gaynor, Barbara Hamill, Judith N. Hogan, Dean Markadakis, Mel Odenis and Sun Ying Tam.

Today we're going to discuss the *female* reproductive system...
Hey, is that a ZIP DRIVE on your desk?

For the nearest dealer, call:
800-818-9728
Or see us at: www.iomega.com

zip drive $199

Let's face it, some systems are far more interesting than others (especially to ten-year-olds). Like a Zip™ drive connected to your PC or Mac. Because it gives you unlimited room for all your stuff: files, reports, games, intriguing diagrams you've never seen before. The Zip drive is the high-performance floppy drive for the multimedia age. It's super easy to install and use. So it makes perfect sense for home, work, or 4th Grade biology class. Put one on your desk. People will find it fascinating.

The One Drive For All Your Stuff.
Endless storage space.
Portable files. Fast, easy backup.
Hard drive expansion.

100MB disks for $14.95.*
Perfect for all your stuff.
One Zip disk holds
as much as 70 floppies.

BECAUSE IT'S YOUR STUFF.™

iomega.™

*When purchased in a gig pack. © 1996 Iomega Corporation. Iomega, the Iomega logo and Zip are trademarks of the Iomega Corporation. Prices [illegible] Actual prices may vary.

Meet July's testers

(Top row, left to right)

Michael Privitera, 29, is an auto mechanic. He shares his home computer, which he uses to run Microsoft Office and a variety of games, with his wife and son.

J. Robert Gross, 39, is a chiropractor and father of three. He'd like to see more notebook computers with built-in CD-ROM drives.

Linda Costa, 41, is a financial analyst. She uses a Macintosh IIcx at home, and although she's not planning to buy a notebook computer anytime soon, she says that if she were to shop for one, she'd want a model that's durable and easy to use.

Boyi Liu, 20, is a computer-science student. He runs a variety of programs, including Word, PageMaker and Access, on his two home computers. He considers performance the most important factor in choosing a notebook computer.

(Middle row, left to right)

Alberta Bardin, 34, is a systems analyst and mother of two. She uses a 120-MHz Pentium PC at home, and recommends looking at a notebook's price and convenience features before buying.

Mike Schlosser, 21, is a PC analyst. He owns a 100-MHz Pentium desktop system, which he uses for software development, games and on-line excursions.

Stuart Asser, 48, is a college professor and father of two grown children. He was using computers long before the advent of the PC, and today he runs programs such as Microsoft Office and Adobe Photoshop on a speedy Pentium desktop system.

Cheryl Moore, 46, is a CPA. She's married, has two children and owns a PowerBook, which she and her family use mostly for scheduling and word processing.

(Bottom row, left to right)

Paul Peterson, 48, is director of vocational rehabilitation at a hospital. Paul, who's married with three children, says he plans to buy a notebook soon, but worries about how much he'll have to spend to get the features he wants.

Lisa Castaneda, 31, is a full-time homemaker. She's been using PCs for about six years, and says if she were shopping for a notebook computer, she'd focus on high-quality color and a low price.

Katharine M. Romenick, 32, is a systems analyst. She's intrigued by notebook computers, but she hasn't taken the plunge yet.

Patrick Powers, 29, works in computer support. He's the father of three children and considers himself a PC expert.

MISS GALAXY,
is there anything you'd like to
say to our judges?
Hey,
is that a ZIP DRIVE
on your desk?

For the nearest dealer, call:
800-818-9728
Or see us at: www.iomega.com

zip drive
$199

Love, peace, and world harmony are beautiful things. But so is having plenty of room on your computer for your stuff. Which is why you need a bright, talented Zip™ drive connected to your PC or Mac. Its 100 megabyte Zip disks give you room for anything: applications, games, speeches, ideas on how to save the world. And thanks to Zip Tools free file management software, it's easy to install and use. So put a Zip drive on your desk. It'll make the whole thing sparkle.

The One Drive For All Your Stuff.
Endless storage space.
Portable files. Fast, easy backup.
Hard drive expansion.

100MB disks for $14.95.*
Perfect for all your stuff.
One Zip disk holds
as much as 70 floppies.

BECAUSE IT'S YOUR STUFF.™

iomega.™

* ... in a gig pack. ... Corporation. Iomega, the Iomega logo and Zip are tradema... eet prices. Actual prices may vary.

• *Canon Innova Book 350CD*

B+
Canon Innova Book 350CD
Sub-$4,000
Highest grade
Ease of setup: A
Lowest grade
Sound quality: B
Specs
Cyrix 100-MHz 5x86, 540-MB hard drive, 10.4-inch dual-scan color screen

GOOD NEWS
- **Swapping devices is a snap**
- **Includes a roomy carrying case**

BAD NEWS
- **Dull screen**
- **Limited hard drive capacity**

Canon made several smart decisions in the design of its Innova Book 350CD, and now the company has the grades to show for it: Testers put the model in the top spot among the three sub-$4,000 notebooks in eight of 11 categories, including overall quality (B+) and overall value (B+).

For starters, they marveled at how easy it was to swap the floppy drive for its CD-ROM counterpart: "Flip it over, push a button and bingo, that's it," said a satisfied J. Robert Gross.

The Innova Book 350CD also took top scores for its size and weight (both A), although it wasn't the lightest model, nor was it substantially more compact than others. The secret is its roomy carrying case; you don't have to struggle to pack away the unit *and* its accessories. "It was *so* easy to transport," said Linda Costa.

Testers were pleased with the model's performance (A-), and it handled our formal hard drive and graphics-intensive tests nimbly, although its 100-MHz Cyrix 5x86 chip didn't handle our processor-performance test quite as well as rivals packing 120-MHz Pentiums.

Only a few dark spots intruded on an overall bright picture: The unit's dual-scan color screen (B) paled against other displays, and testers harped on the single speaker's weak sound and a loose power cord connection. But at $2,650 in stores, those quibbles didn't keep them from carrying on about this portable powerhouse.

• *WinBook XP5*

Easy on the eyes and rugged for the road—that's how our testers assessed the WinBook XP5, which landed in the middle of our sub-$4,000 notebook field.

All the testers came away impressed with the WinBook XP5's uncompromising active-matrix color screen, which earned the top grade of A-, easily outpacing its two rivals. Mike Sehlosser, for one, admired the "clear, crisp" display and "very bright colors."

B+
WinBook XP5
Sub-$4,000
Highest grade
Screen quality: A-
Lowest grade
Overall value: B
Specs
Intel 120-MHz Pentium, 810-MB hard drive, 10.4-inch active-matrix color screen

GOOD NEWS
- **Excellent screen**
- **Choice of pointing devices**

BAD NEWS
- **Easy to disrupt the docking-station connection**
- **No multipurpose expansion bay**

The group also liked the cursor-control options; the PC comes with a pointing stick, but you can use a touchpad ($79.95) or trackball ($29.95) instead.

The unit's real-world performance earned a second-place A- from our panel. Indeed, it scored well on formal tests that taxed its memory and processor, though it lagged a little when hard drive and graphics capabilities were on the line.

While testers appreciated how easily the notebook slides into its docking station, "the connection between the two didn't hold too well." Linda Costa reported. "Shift the laptop a bit and it shuts off."

It also bothered testers that the CD-ROM drive was built into the docking station, rather than fitting into an expansion bay. But between the model's lucid display and satisfying battery life, they found sufficient reasons to justify the price (about $3,800).

For the nearest dealer, call:
800-818-9728
Or see us at: www.iomega.com

zip drive
$199

Sure, quintuplets will keep your hands full. But have you seen the way these new software programs fill up your hard drive? That's why you need to connect a cute little Zip™ drive to your PC or Mac. Each Zip disk gives you 100 megabytes to store your stuff: programs, personal files, pictures, pleading letters to diaper manufacturers, whatever. The Zip drive is the high-performance floppy drive for the multimedia age. You really can't get by without it. So put one on your desk. Or two. Or three.

The One Drive For All Your Stuff.
Endless storage space.
Portable files. Fast, easy backup.
Hard drive expansion.

100MB disks for $14.95.*
Perfect for all your stuff.
One Zip disk holds
as much as 70 floppies.

BECAUSE IT'S YOUR STUFF.™

iomega.™

in a pack. ©1996 Iomega Corporation. Prices listed are estimated street prices. Actual prices may vary.

• AcerNote Pro Pentium 120

The AcerNote Pro Pentium 120's overall B grade reflects both the testers' delight at easy-to-follow documentation (B+) and a clear screen (B), and their frustration with

poorly designed input devices, unreliable power, and restrictions on the CD-ROM drive.

B
AcerNote Pro Pentium 120
Sub-$4,000
Highest grade
Documentation: B+
Lowest grade
Pointing device: C-
Specs
Intel 120-MHz Pentium, 810-MB hard drive, 10.4-inch dual-scan color screen

The notebook's grades for its keyboard (B) and pointing device (C-) were the lowest the testers doled out. Linda Costa complained about "stiff" keys, while the unit's touchpad got jeers for its small size and touch-resistant buttons.

Power was a bone of contention, too. "After a while, the notebook cut out—even on AC," Mike Schlosser told us, and he wasn't the only one. Acer says that early units had a problem with the alert that turns the system off when it becomes too hot, but that this has been corrected.

Boyi Liu lamented that "you can't fit the CD-ROM drive in the accessory bay and a nickel/metal hydride battery in the power bay at the same time." For battery-powered operation along with CD-ROM access, you need a $399 lithium-ion battery. On the upside, the system includes two NiMH batteries that can be installed at the same time, allowing you to conveniently extend computing sessions.

In the end, testers could not justify spending nearly $3,000 for Acer's notebook when other choices cost less, perform better or sport more elegant designs.

GOOD NEWS
- Two batteries in the box
- Clear screen

BAD NEWS
- Poorly designed input devices
- Power problems

• Toshiba Satellite Pro 400CDT

A-
Toshiba Satellite Pro 400CDT
More than $4,000
Highest grade
Ease of setup: A
Lowest grade
Weight: B+
Specs
Intel 75-MHz Pentium, 772-MB hard drive, 10.4-inch active-matrix color screen

#1

Testers found a lot to like about the Toshiba Satellite Pro 400CDT. When pressed to name favorite features, they pointed to the sparkling screen (A-), sizzling sound (A) and durable design. "The screen's colors and brightness blew everything else away," Lisa Castaneda said. And like the other testers, she was impressed by the sound from the single speaker.

But that only begins to explain why the notebook dominated almost every category in the $4,000-and-up group. Testers hailed the internal power supply (unique in this group) and the ability to have access to CD-ROM and floppy drives at the same time without a docking station. The fact that the unit, which costs about $4,500, has only a 75-MHz Pentium didn't bother testers at all.

"The performance didn't seem much slower than the Compaq LTE 5200," said Stuart Asser. Indeed, in our formal memory and processor tests, the Toshiba unit—with its high-speed EDO RAM—was a good match for 120-MHz models, and it did well in our hard drive and graphics tests, too. Testers would have preferred a control other than the pointing stick, but they weren't touchy about it. "The Satellite Pro is right on the money," Lisa said.

GOOD NEWS
- Fantastic screen
- Internal power supply

BAD NEWS
- An intuitive touchpad would be nice

CAREFUL, JENKINS!
one false move and
the future of civilization is...
Hey,
is that a ZIP DRIVE
on your desk?
BECAUSE IT'S YOUR STUFF.™

For the nearest dealer, call:
800-818-9728
Or see us at: www.iomega.com

zip drive
$199

True, testing strange chemicals can be tricky. But have you tried finding room for all your important stuff? What you need is a Zip™ drive connected to your PC or Mac. Its 100 megabyte Zip disks give you space for stuff like programs, files, reports, current health insurance records, whatever. The Zip drive is the high-performance floppy drive for the multimedia age. It's easy to install and use. So put a Zip drive on your desk. Its fame is spreading like wildfire.

The One Drive For All Your Stuff.
Endless storage space.
Portable files. Fast, easy backup.
Hard drive expansion.

100MB disks for $14.95.*
Perfect for all your stuff.
One Zip disk holds
as much as 70 floppies.

iomega™

*When purchased in a gig pack. © 1996 Iomega Corporation. Iomega, the Iomega [illegible] trade [illegible] ega Corporation. Prices listed are estimated [illegible] treet prices. Actual prices may v[illegible]

• *Compaq LTE 5200*

The Compaq LTE 5200 was a strong second among the three notebooks in its group. Testers were very impressed by its comfortable keyboard, awarding it the top score (A-) in that category. Sharp documentation earned another thumbs-up (B+).

B+
Compaq LTE 5200
More than $4,000
Highest grade
Size: A
Lowest grade
Overall value: C
Specs
Intel 120-MHz Pentium, 1.3-GB hard drive, 10.4-inch active-matrix color screen

The LTE 5200 also scored a B+ in the sound category, although testers thought the audio, while clear, was too subdued. "I wasn't looking to shake the walls," said Lisa Castaneda, "but I'd have liked a little more volume."

On the downside, while the group gave the display a B+ on the strength of its extended 800-by-600-pixel resolution, they thought the images on the screen should have been brighter and more vivid than they were.

Testers also found the LTE 5200's eraser-like pointing stick uncomfortable to use, and some were confused by the initial setup, which required them to choose between Windows 3.1 and Windows 95. They were also annoyed that they had to struggle to get the carrying case for the floppy or CD-ROM drive (depending on which is installed at the time) to fit inside the laptop shoulder bag.

What really threw them for a loop, though, was the price. "It's a nice machine," summed up Paul Peterson, "but not for $6,000."

GOOD NEWS
- **Comfortable keyboard**
- **Excellent documentation**

BAD NEWS
- **Screen images are dull**
- **It'll set you back $6,000**

• *Apple PowerBook 5300c/100*

Although it landed behind the two other notebooks that cost more than $4,000, that doesn't mean testers were displeased with Apple's PowerBook 5300c/100.

B
Apple PowerBook 5300c/100
More than $4,000
Highest grade
Ease of setup: B+
Lowest grade
Overall value: B-
Specs
100-MHz PowerPC 603e, 750-MB hard drive, 10.4-inch active-matrix color screen

"I found the touchpad very easy to adapt to," said Stuart Asser, and most everyone agreed, giving it a category-leading B+ (tied with the Toshiba Satellite Pro 400CDT). The only drawback is that, unlike most touchpads, you have to click on a separate button rather than simply tap on the touchpad surface to activate various on-screen options.

While testers were satisfied with performance (B+), they developed a deep dislike for Apple's foot-long external CD-ROM drive. Although the PowerBook 5300c/100 has an expansion bay that accepts devices from other companies, at press time an expansion-bay CD-ROM drive was not part of the system.

"Forget about using your CD-ROMs on the road" with this PowerBook, cautioned Alberta Bardin.

Note also that the keyboard score (B) was the lowest in its group; some testers found that the keys were hard to reach.

In the end, the PowerBook 5300c/100 walked off with a B- for overall value; testers ultimately wouldn't bite for Apple's $4,485 price. •

GOOD NEWS
- **Easy-to-use touchpad**

BAD NEWS
- **Huge external CD-ROM drive**
- **Hard-to-reach keys**

CompuServe gives you the Internet.

[As if our 3,000 online services weren't enough.]

TEN free hours first month

What do you get when you combine the world's largest online service and the vast network of 30 million Internet users? The simplest way to connect to the whole world at once. Because CompuServe gives you one-stop access to the Internet, plus thousands of our own services online. And to prove it's the easiest way to connect to people

Get ready for an unbeatable online experience including the Internet.

Mail this card or call 1-800-487-0588.

Send me free CompuServe software now. And give me 10 free hours of service.

Name _____ Company _____

Address _____ City _____ State/Province _____

Zip/Postal Code _____ Day Phone _____ Evening Phone _____

☐ CD ROM ☐ Windows ☐ Mac ☐ Other _____

New members only. One free membership per household, please.

#HPR 7/96

CompuServe®

• *Compaq LTE 5200*

The Compaq LTE 5200 was a strong second among the three notebooks in its group. Testers were very impressed by its comfortable keyboard, awarding it the top score (A-) in that category. Sharp documentation earned another thumbs-up (B+).

The LTE 5200 also scored a B+ in the sound category, although testers thought the audio, while clear, was too subdued. "I wasn't looking to shake the walls," said Lisa Castaneda, "but I'd have liked a little more volume."

On the downside, while the group gave the display a B+ on the strength of its ex-

B+
Compaq LTE 5200
More than $4,000
Highest grade
Size: A
Lowest grade
Overall value: C
Specs
Intel 120-MHz Pentium, 1.3- hard drive, 1 inch active- trix color scr

GOOD NEWS
- **Comfortabl keyboard**
- **Excellent documentati**

BAD NEWS
- **Screen imag are dull**
- **It'll set yo back $6,00**

• *Apple PowerBook 5300c/100*

Although it landed behind the two other notebooks that cost more than $4,000, that doesn't mean testers were displeased with Apple's PowerBook 5300c/100.

"I found the touchpad very easy to adapt to," said Stuart Asser, and most everyone agreed, giving it a category-leading B+ (tied with the Toshiba Satellite Pro 400CDT). The only drawback is that, unlike most touchpads, you have to click on a separate button rather than simply tap on the touchpad surface to activate various on-screen options.

While testers were satisfied with performance (B+), they developed a deep dislike for Apple's foot-long external CD-ROM drive. Although the PowerBook 5300c/100 has an expansion bay that accepts devices from other companies, at press time an expansion-bay CD-ROM drive was not part of the system.

"Forget about using your CD-ROMs on the road" with this PowerBook, cautioned Alberta Bardin.

Note also that the keyboard score (B) was the low-

B
Apple PowerBook 5300c/100
More than $4,000
Highest grade
Ease of setup: B+
Lowest grade
Overall value: B-
Specs
100-MHz PowerPC 603e, 750-MB hard drive, 10.4-inch active-matrix color screen

GOOD NEWS
- **Easy-to-use touchpad**

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 4650 COLUMBUS OH
POSTAGE WILL BE PAID BY ADDRESSEE

COMPUSERVE
P O BOX 182680
COLUMBUS OH 43272 - 0312

CompuServe gives you the Internet.

[As if our 3,000 online services weren't enough.]

TEN free hours first month

What do you get when you combine the world's largest online service and the vast network of 30 million Internet users? The simplest way to connect to the whole world at once. Because CompuServe gives you one-stop access to the Internet, plus thousands of our own services online. And to prove it's the easiest way to connect to people and information worldwide, we'll give you ten free hours of exploration time in the first month. And five free hours every following month.

With a membership to CompuServe, you get thousands of engaging services. Like *Time* Magazine, *Sports Illustrated*, *People* Magazine, *Rolling Stone*, music and movie clips, Comedy Central, Roger Ebert's Movie Reviews, games and Wall Street reports. There's also the widest selection of professional and technical forums of any online service. Plus the World Wide Web and global e-mail.

Just give us a call (or you can go to www.compuserve.com if you're already wired) to receive:

1. Free CompuServe software.
2. One free month of CompuServe membership (a $9.95 value). Membership includes five free hours each month, with additional online time only $2.95 per hour!
3. BONUS! Five additional hours online during your first month of membership for a total of ten free hours.

Call 1-800-487-0588 Today

©1996 CompuServe, Inc. New members only. Limit one membership per household. Some additional charges may apply.

CompuServe®

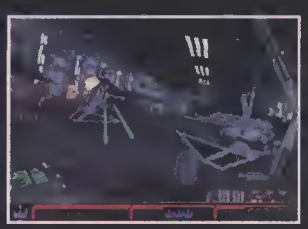
CIRCLE READER SERVICE NUMBER 72

"★★★★ The mixture of video and computerized 3D animation is unparalleled...in all, another *Star Wars* triumph."
– USA TODAY

"...STUNNING..the finest game I've ever played."
– Multimedia World

"...this sequel goes galaxies beyond the original..."
– Entertainment Weekly

STAR WARS® REBEL ASSAULT II™



A NEW ADVENTURE IN THE *STAR WARS* SAGA.
FILMED EXCLUSIVELY BY LUCASARTS ENTERTAINMENT.

Rebel Assault II: The Hidden Empire™ is a totally fresh, completely original chapter in the *Star Wars* universe. With movie-quality live action video-incorporating props, sets and costumes from the *Star Wars* trilogy. Enhanced 3-D graphics. Plus an all-new storyline. It's more than a sequel. It's the new standard in interactive space combat. Available on PC CD-ROM (DOS, Windows 95™ and Macintosh). Check out Rebel Assault II at LucasArts web site: http://www.lucasarts.com

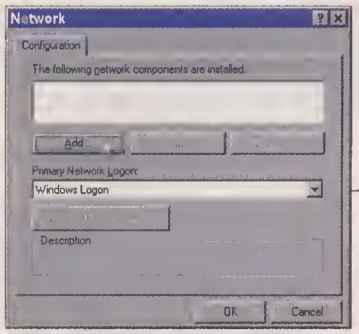
Rebel Assault II: The Hidden Empire™ and © 1995 Lucasfilm Ltd. All Rights Reserved. Used Under Authorization. Star Wars is a registered trademark of Lucasfilm Ltd. The LucasArts logo is a registered trademark of LucasArts Entertainment Company.
CIRCLE READER SERVICE NUMBER 36

do-it-yourself

nuts + bolts

STEP-BY-STEP TIPS

The ties that bind: Linking two PCs in Win 95



1 **Shut down one of your two PCs and install a network card according to the manufacturer's instructions. (Set aside whatever driver disk came with the card; odds are you'll be able to use Windows 95's built-in drivers.) Restart the PC, and from the Windows 95 Control Panel, double-click on the Network icon to open that window. Click on the Add button to install Windows 95 drivers for your network card.**

In years past, if you wanted to see teamwork between two home computers, you had to resort to a "sneaker-net": To move files from one PC to the other or use one printer with both computers, you laced up your running shoes and shuttled floppy disks from machine to machine.

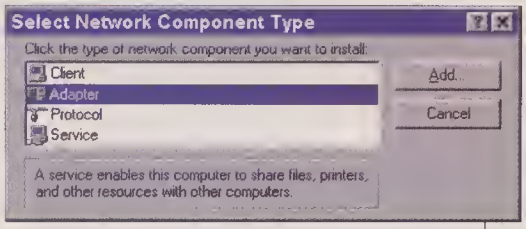
Pooling two computers' resources became easier—but not truly easy—when folks put the sneakers away and began running Windows for Workgroups 3.11; it was tricky, but at least it was possible to let the machines copy each other's files, and share drives, printers and scanners via network connections. When Windows 95 hit the scene, home networking received its biggest boost yet: Linking two home computers finally became simple.

If you have two Windows 95 PCs and want them to work together, all you need are two Plug-and-Play thin Ethernet network cards; a stretch of thin Ethernet, or coaxial, cable; two BNC "T" connectors; and two BNC terminators. You can pick up everything on this shopping list at your local computer store (although smaller retailers may have to order some of the items); the total cost should be around $100. Then invest about an hour of your time, and with the steps beginning at left (and a bit of patience), your two computers will be joined at the chip.

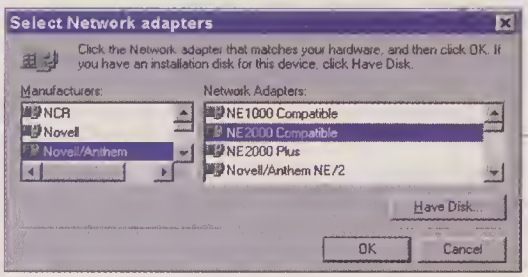
Before you begin...

- Make sure both your PCs are running Windows 95.
- Purchase two thin Ethernet network cards, a length of thin Ethernet cable to reach from one machine to the other, two BNC "T" connectors and two BNC terminators.

by sean fulton



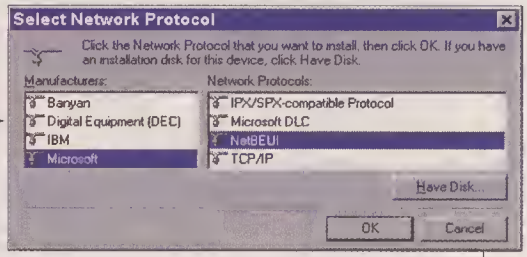
2 **Click once on the "Adapter" line to highlight it, then click on the Add button.**



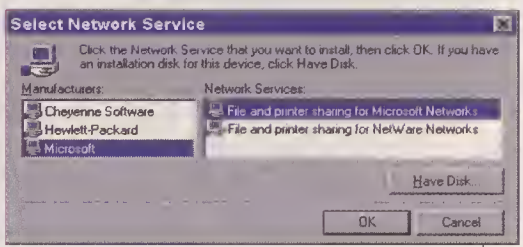
3 **Highlight the manufacturer of your network card in the list of companies on the left side of the next window, then highlight your network card on the right.**

If you can't find either your manufacturer or your specific card listed, check the card's documentation to see if it's NE2000-compatible. If it is, highlight "Novell/Anthem" on the left and "NE2000 Compatible" on the right. (If your card isn't NE2000-compatible, use the driver disk that came with your card; click on Have Disk and follow the instructions on the screen.)

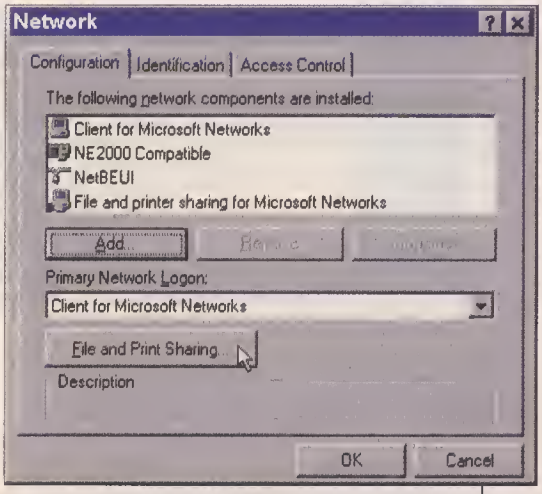
Once you've made your selections, click on OK. You may be asked to insert your Windows 95 CD-ROM or installation floppies; after doing so, you may be asked if you'd like to restart the computer. Click on No, since you've got a few more steps to go through first.



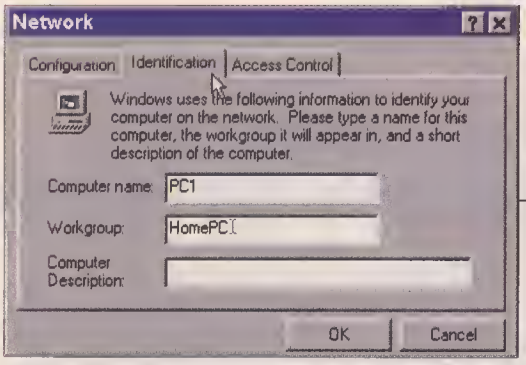
4 **The Network window should be back on your screen; click on the Add button again. In the window that pops up (see step 2), highlight "Protocol"—the language the two PCs will use to communicate—and click on the Add button. Then select "Microsoft" in the list of manufacturers that appears on the left, and either "IPX/SPX-compatible Protocol" or "NetBEUI" in the list on the right. (The difference between the two relates only to network servers; since you're simply connecting one Windows 95 PC to another, either protocol will do the trick—but be sure to select the same one on *both* of your PCs.) Click on OK, and if you're asked if you want to restart the computer, click on No.**



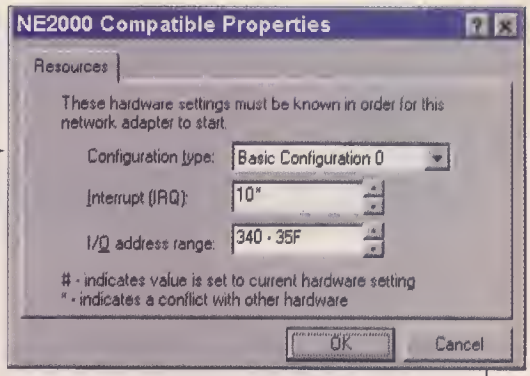
5 **Now you'll need to tell Windows 95 what you want to do with your network connection: The Network window should be on your screen once again; click on the Add button, and this time highlight "Service" and click on Add. Again, select "Microsoft" in the list of manufacturers that appears on the left, and "File and printer sharing for Microsoft Networks" in the list on the right. Click on OK. If you're asked about restarting the computer, click on No.**



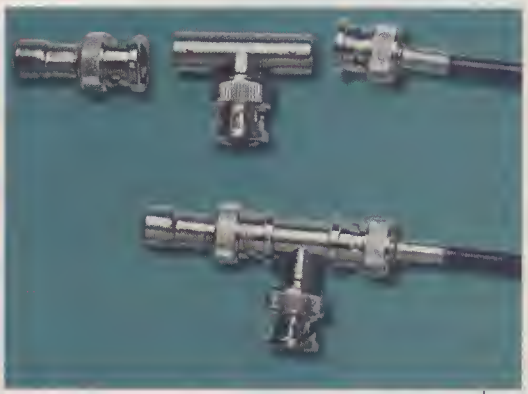
6 **Your Network window should now look like the one above. Click on the button marked File and Print Sharing in the lower portion of the window, and make sure both boxes are checked (one for file sharing, one for printer sharing), then click on OK. Once more you may be asked if you want to restart your computer; the answer is still No.**



7 **At the top of the Network window, click on the Identification tab to bring up a screen where you'll identify each computer in your network. Type a name for the computer you're working on in the Computer Name box, and name your network in the Workgroup box. (Note that your two PCs must have different names, while their workgroup name must be the same.) Click on OK. The driver installation and network setup is now complete on this machine, so you will (finally!) need to restart the computer whether you're prompted to do so or not.**



8 **If there were any problems with the driver installation, or if any of the card's resource settings need to be changed, a window may pop up asking you to make adjustments before rebooting. If a setting is shown to conflict with one used by another device inside your PC (indicated by a *), simply change that setting using the up/down arrows at the right until the * disappears. Consult the network card's documentation to determine if there's anything else you'll need to do to eliminate conflicts. Click on OK and restart.**

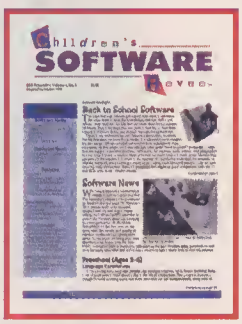


9 **Repeat steps 1 through 8 for your second computer. (Remember, you must choose a unique name for this PC, but use the same workgroup name.) After you've completed step 8 for the second PC and rebooted, attach one end of the thin Ethernet cable to one side of a BNC "T" connector, and a BNC terminator to the other side of the connector; then attach the bottom (wide) part of the connector to one network card. Follow the same procedure at the other end of the cable, attaching it to your second network card.**

10 **Restart both PCs. On one of them, double-click on the Network Neighborhood icon on the desktop; in the window that opens, you should see icons representing both computers. If you don't, check the cable connections carefully, and verify that the Network window on both PCs looks like the window shown in step 6, making sure the two machines are using the same protocol—either IPX/SPX-compatible or NetBEUI. If you're stuck, go to the Help pull-down menu; choose Network Troubleshooter from the Index, which will help you trace the problem in your network setup.**

11 **Once everything is in order, it's time to put your network to work. Double-click on the My Computer icon on either PC, and click the secondary mouse button on the icon for any device on this machine that you want to be able to share with the other (such as a hard drive, a CD-ROM drive or, in the Printers folder, a printer); from the pull-down menu that appears, select Sharing.**

Keep Up To Date On Children's Software



The *Children's Software Revue*™ newsletter gives parents and educators of kids ages 3 to 14 information they need to know to help kids use computers better.

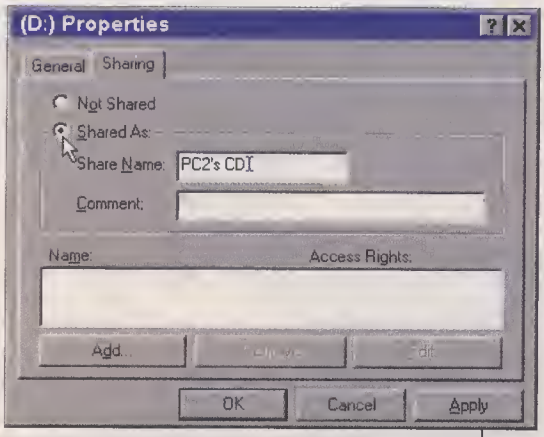
With timely write-ups of more than 100 just-released CD titles and insights on PC-related products, you'll know the cream of the crop when new software hits the market.

Divided by grade level — preschool, early elementary and upper elementary — and edited by award winner Warren Buckleitner (Software Publisher's Association 1995 Codie Award for "Best Software Reviewer"), the ***Children's Software Revue*** is chock-full of informative articles and solid software reviews based on kids' hands-on tests.

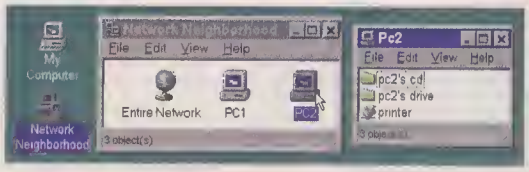
Start your $24 subscription today (or ask for a complimentary issue).

Call 1-800-993-9499 (Visa or Mastercard Accepted)

If you know of software you'd like CSR to review, or have an opinion you'd like to share, please contact Warren Buckleitner, editor, at (313) 480-0040 (phone), or (313) 480-2260 (fax), or send e-mail to buckleit@aol.com.



12 **Click on the button labeled Shared As. In the Share Name field, enter a name for this device as you'd like it to appear on the network. Click on OK. Repeat steps 11 and 12 for each device on this machine that you'd like to be able to share with the other, and do the same on the other PC to share any of that computer's resources with this one.**

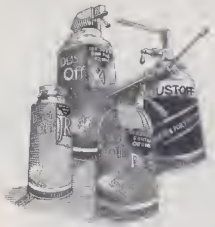


13 **In the Network Neighborhood window of either computer, double-click on the icon for the new partner; a window will open showing everything connected to the other machine that's available for this PC to use. If you've selected one PC's printer to be shared, you'll need to "install" it on the other PC; launch the latter's Add Printer Wizard, and specify "Network" instead of "Local" during the installation process. You can also pop a disc into a shared CD-ROM drive on one of your computers and run the program on the connected PC. And of course, accessing files on a hard drive is now a two-way proposition. There are numerous benefits from your new arrangement; explore the possibilities to get your share.** ●

HOW TO KEEP YOUR COMPUTER FROM BITING THE DUST.

A little dirt in the wrong place can bring your computer to a crashing halt. Dust Off® stops dirt, dust and debris from clogging keyboards, fouling disk drives, and generally wreaking havoc with the variety of office equipment we all depend on.

Available in a wide variety of models to suit every need, Dust-Off products blow away dangerous dust and dirt with 100% ozone-safe effectiveness. Depend on the original and still #1 choice in computer cleaning products to keep your office running smoothly. Dust-Off.



Dust-Off®

America's First Family of Dusters.

FALCON

©1994 Falcon Safety Products, Inc., 25 Chubb Way, Branchburg, NJ 08876
World Wide Web address: http://www.falconsafety.com

CIRCLE READER SERVICE NUMBER 71

From the world leader in Windows® graphics software

CD-ROM Format

THE BEST IN 32-BIT GRAPHICS POWER FOR EVERYONE!

Corel Print House™ the best-selling Windows® 95 software application! (PC DATA, Jan. '96)

Corel Print House™ Requires Windows® 95

The Easy All-In-One Graphics Powerhouse!

Incredible Value!

- 5,000 stunning clipart images
- 1,000 catchy phrases
- 1,000 fantastic photos
- 1,000+ professionally designed and easy-to-use samples
- 100+ top-quality fonts

Easy to Use!

- Create great-looking projects in a few easy steps
- Intuitive interface
- Drag-and-drop clipart and special effects

CorelDRAW™ 6

The Best in 32-Bit Graphics!

Microsoft® Windows 95

Powerful!

- Designed exclusively for Microsoft® Windows® 95
- State-of-the-art graphics engine
- Power, precision and 32-bit speed
- Fully customizable user interface
- Multiple Document Interface (MDI)

Incredible Value!

- Fully featured applications for illustration, photo-editing and bitmap creation, 3D rendering, animation and multimedia presentations
- OLE 2.0 support, drag and drop between applications
- Industry-leading drawing, editing and text handling capabilities

Corel® Graphics Pack Requires Windows® 95

The 32-Bit Wizard-Driven Total Graphics Solution!

Easy to Use!

- All-in-one graphics solution!
- Ideal for graphics, presentations, photo touch-ups, 3D graphics, charts and diagrams, space planning, family trees, stationery, calendars, home page creation, greeting cards and much more!
- Wizard-style user interface
- Step-by-step help file
- Choose from over 50 tasks

Powerful!

- State-of-the-art 32-bit CorelDRAW™ engine
- 32-bit power and precision

Enter the Corel® $3,000,000 World Design Contest! (September '95 to July '96) To receive a faxed copy of the contest rules and an entry form, please call: 1-613-728-0826, ext. 3080, Document # 1125. To leave a message: 1-613-728-0826, ext. 81609. To send a fax: 1-613-728-2891.

Corel, CorelDRAW and Corel Print House are either trademarks or registered trademarks of Corel Corporation in Canada, the United States and/or other countries.

Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

COMPUSA® THE COMPUTER SUPERSTORE℠

1-800-COMPUSA
1-800-266-7872

Visit any of our stores or call our nationwide toll-free number.

CorelDRAW™5 to CorelDRAW™6 upgrade $219.99
CorelDRAW™6: $479.99*

Corel Print House™ $39.99*

Corel® Graphics Pack $99.99*

Special price while quantities last.

*US$ plus applicable taxes.

KUR-0239-US

COREL

http://www.corel.com

Call now for faxed literature!
1-613-728-0826 ext. 3080

financial adviser

TAKING CARE OF HOUSEHOLD BUSINESS

Real estate questions? Look up these home pages

Before John Rutledge accepted a position with a computer-consulting firm in suburban Maryland, he spent a lot of time scouting his would-be new home. But even though the town was a three-hour drive from the U.S. Air Force base in Hampton, Va., where he was stationed, the staff sergeant got a good look around without leaving his den—he did all his reconnaissance work over the Internet.

First, John searched the World Wide Web and found sites created by branches of local government and the chamber of commerce. From the Montgomery County page (*http://www.co.mo.md.us/*), he learned the average household income in the area was $97,600, the median age was 35, and 47 percent of homes had a computer. He found a list of the largest employers in the county and felt encouraged about his possibilities in the area.

When he decided to accept the job offer and relocate, his Web research continued, though the addresses changed. He found Homes & Land Publishing (*http://www.homes.com/*), which lists houses—complete with color photos of the exteriors—from 250 metro-area real estate magazines. While John selected his house the old-fashioned way—with the help of a local realtor—he decided against using the mortgage broker recommended by the agent. Instead, he turned to American Finance & Investment, a member of the Mortgage Bankers Association offering competitive rates and rock-bottom closing costs through an independent Web site called Financenter (*http://www.financenter.com/*).

"It was great," John says. "I filled out an on-line application and used mortgage calculators to help decide what kind of loan to get."

John's interest in the Web's home pages isn't unusual among people who are buying or selling houses these days, as mortgage lenders, real estate brokers and agents woo customers with powerful electronic analytical and marketing tools. With a modem and an Internet connection, you can prequalify or apply for a mortgage, compare the costs of different loans, and calculate the advantages of locking in a lower interest rate by paying points. First-time homebuyers can find much-needed guidance and background information, and if you're relocating, like John, you can look for a house, research the cost of living in the new area, estimate moving costs and more.

by wayne harris

Illustration by Wendy Grossman

ROBERT E. LEE:

CIVIL WAR

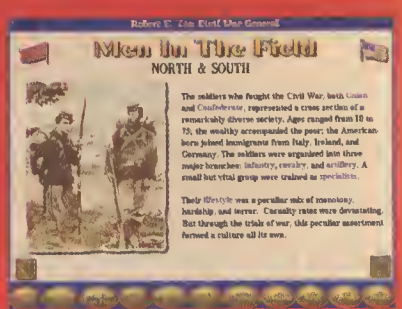
★ GENERAL™ ★

Illustration by Mort Künstler

SECEDE WHERE OTHERS HAVE FAILED.

Take your place in history with Robert E. Lee: Civil War General. Test your military mettle as you relive the battles of the Civil War in this true-to-life CD-ROM game. Lead your troops through 7 historic Civil War engagements, and enrich the experience with an in-depth multimedia presentation. Wage a campaign alone, or battle Head-To-Head via modem. Evocative illustrations by renowned Civil War artist Mort Kunstler and re-enactment footage by award-winning filmmaker Jay Wertz make each battle so real you can almost smell the gunpowder.

Experience the Civil War at its most exciting this Spring! See your local software dealer today, hit us at http://www.sierra.com, or call 1-800-757-7707.



SIERRA®

Impressions Designed by Impressions Software

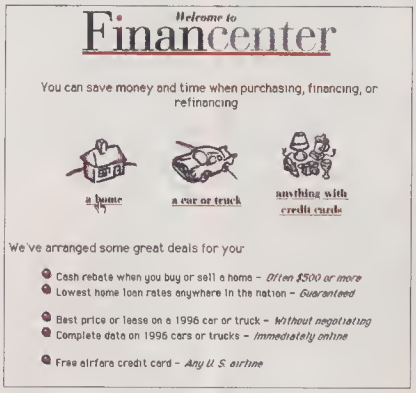
RP

CIRCLE READER SERVICE NUMBER 52

(To learn what commercial on-line services offer, as well as find tips on locating new information and services on the Web, see the sidebar on page 133.) When selling a house, you can expand the potential market by putting a photo and listing on the Web.

If you're shopping for a mortgage, Financenter's wealth of analytical tools and rock-bottom pricing make it an excellent place to begin: the site includes 35 calculators that help visitors weigh the cost of dozens of loan options.

For example, John set his sights on a 30-year mortgage with a seven-year balloon payment—that is, the loan would be calculated on a 30-year schedule, but he'd have to pay the balance after seven years: this would allow him to keep his monthly payments affordable *and* get a low interest rate. The big payment at the seven-year mark didn't worry him because he plans to sell the house in five years.



Financenter moves fast on home loans, promising to act in 48 hours.

John used a Financenter calculator to compare his desired 30-year mortgage to an adjustable-rate loan. After he entered the details of both mortgages, the calculator showed him the relative costs under a best-case scenario (steadily declining interest rates) and a worst-case scenario (steadily rising rates). It even factored in anticipated tax savings on the loans from a home mortgage deduction and let him compare the after-tax cost of each.

Once he'd settled on the 30-year loan, John used another Financenter calculator to determine that he'd be better off paying at least two points up front—each point represents 1 percent of the total loan—to get a lower interest rate.

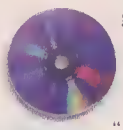
Then he negotiated with American Finance, mainly by e-mail and fax. (His e-mail was encoded against interception by his Netscape Navigator browser, but not all sites support this feature; see the box at left for details.) He says the service was excellent, and he estimates he saved $2,000 in closing costs.

Along with providing the calculators John used, Financenter can help you determine how much you'll be able to borrow, what your payments and closing costs will be, whether you're better off buying or renting, refinancing or standing pat, or going for a fixed- or adjustable-rate mortgage for a term of 15 or 30 years. (For reviews of software programs that perform some of these calculations, see Fi-

Stay secure

Be aware that even if your Web browser can encrypt e-mail to protect sensitive information from prying eyes, not all mortgage lenders' Web sites support the technology on their end. When the encryption tool built into Netscape Navigator is engaged by a secure site, the two halves of the broken key in the lower left corner of the browser screen connect. If you're going to send financial data on-line, check the key icon first. If it's broken, print out the application, and fax or mail it to the lender; do the same if you're using a browser without encryption. —*W.H.*

Play *Picture Perfect Golf*, the only golf software that fully leverages CD-ROM and virtual reality technology. A first person perspective puts you, not an animated figure, on the course. Add the optional electronic indoor golf club, and simulate playing golf with your own swing. See why Electronic Entertainment calls this ". . . the most realistic golfing experience available on the PC." Courses available: Harbour Town, Coeur d'Alene and the Prince Course, the #1 course in Hawaii. ★★★★★ – *Computer Life*



Available wherever CD-ROMs are sold. *(Win/Win 95)*

For more information:
1.800.591.6100 or
http://www.enteractive.com

Enteractive Inc.

CIRCLE READER SERVICE NUMBER 23 HPC 796

"I learned how to *point and click.*"

"I learned how to *drag and drop.*"

"I learned how to *use the keyboard.*"

My Very First Software

When it's time to start your child on the computer, there's only one place to begin — My Very First Software. Developed in conjunction with parents, teachers, children and early learning computer experts, *My Very First Software* not only teaches essential computer skills, but also encourages creativity and exploration. And with so many fun-filled pointing, clicking, dragging and keyboard games, we promise your child won't be a beginner for long.

Call 1-800-9TMAKER for the retailer nearest you.

VroomBooks™

TM 972

EGGHEAD SOFTWARE · BEST BUY · COMPUSA

CIRCLE READER SERVICE NUMBER 66

Commercial zones: Value varies

Just as on the Web, real estate areas on the commercial on-line services vary in quality. In general, the exclusive real estate information on the major services is less helpful, comprehensive and interactive than the best of the Web.

Of the commercial services, the offerings on America Online are the easiest to find and best designed. The real estate section under Clubs & Interests (Keyword: Real Estate) includes the Real Estate Center, which lists mortgage rates from lenders nationwide; has message boards covering topics such as refinancing and taxes; and maintains a library. You'll find listings in the Buy, Sell, Rent, Exchange folder, but they're sparse and lack photos. AOL also offers links to relevant Web sites and the United Homeowners Association forum.

On CompuServe, go to the Money Personal Finance section (Go Finance), click on Rates and then on Home for current mortgage and home-equity loan rates, plus articles with good advice on home loans and marketing your house.

Ferreting out real estate information on the glacial and enigmatic Microsoft Network is difficult. When I tried to view mortgage rates in an area called Mortgage Online, I got a window of unreadable computer code. A section called Real Estate Finance was "not available at this time." And clicking on an icon in the Property Finance area for a prequalification calculator triggered—without warning—a 20-minute download.

Prodigy's Real Estate Center (Jump: Real Estate) has listings from the Homes & Land real estate firm, but the graphics are less attractive than those on the company's own Web site. Prodigy also offers for-sale-by-owner classifieds, which cost $30 a month for a three-month listing, but I found listings for only a handful of states. Prodigy's Homefinder offers community reports and other relocation information for $5.95 per document, but there's no way to gauge the quality of the reports before you pay for them.

The commercial services' main value in real estate info is their link to the Web. To find the best of the Web's real estate pages, visit the Internet Real Estate Digest, or IRED (*http://www.ired.com/*), which indexes and rates hundreds of sites focused on real estate, and includes a monthly list of the top 10 sites. Finally, if you're wondering what it will cost to reach your new house, the World Wide Web of Moving's Online Estimate (*http:// www. mover. com/~tall/move/estimate.htm*) lets you check off up to 150 items you own, zap the form to any of seven national moving companies, and receive estimates by electronic or regular mail. —*W.H.*

An underwater world is closer than you think with Jean-Michel Cousteau's *Cities Under The Sea.* Dive beneath the waves and discover the awe-inspiring coral reefs through seven undersea laboratories, each focused on its own ecological theme.

Enthralling & enlightening, *Cities Under The Sea* allows you to explore the splendor and rigors of life within a coral reef.

Take a dive with Jean-Michel Cousteau – you'll find much more in the water than you ever imagined.

Available wherever CD-ROMs are sold. *(Win/Win 95 & Mac)*

For more information:
1.800.591.6100 or
http://www.enteractive.com

Enteractive Inc.

CIRCLE READER SERVICE NUMBER 22 HPC 696

"The Best Way to Bring Pictures Into Your PC"

SNAPPY Brings Stunning Pictures From Video Into Your PC

Play's Snappy lets you grab sensational PC stills from any camcorder, VCR or TV. It's easy! Just plug Snappy into the printer port on the back of your desktop or laptop PC. Then connect any video source to Snappy with the included cable. Watch your PC screen and when you see the picture you want, click Snap. It's really that simple. For the first time ever, ANY scene your camcorder can see, ANY tape in your VCR or ANY show on TV can be a perfect still on your PC.

With the press of a single button, Snappy captures breathtaking images in 16.8 million vibrant colors at record-breaking resolutions up to 1500 x 1125. It's perfect for thousands of uses from desktop publishing, presentations, databases, faxing and Internet pictures, all the way to PC photo albums, school reports or just morphing your friends into celebrities grabbed from TV. Snappy is already the USA's best-selling PC video add-on. Hundreds-of-thousands of PC users are surprising their families, amazing their friends and impressing their clients with awesome stills grabbed right from video. Snappy is the technology breakthrough that **makes your PC more powerful, more visual ... and more fun!**

Make vacation pictures from camcorder tapes.

Watch your kids grow up with animated morphs between old and new pictures.

Only $199.95
Approximate Selling Price

FREE GIFT!

$300 worth of award-winning software

Buy a Snappy and you'll also get Fauve Matisse SE for paint, retouching and titling and Gryphon Morph for morphing, warping, and special effects.

Rave Reviews!

"the results are astonishing... Get one—you'll love it"
—PC Magazine

"produces terrific video stills... the best we've ever seen"
—Windows Sources

"For the first time, you can get print-quality images from video"
—Camcorder Magazine

Hot Awards!

BEST PERIPHERAL OF THE YEAR — PC MAGAZINE TECHNICAL EXCELLENCE

the BEST of EVERYTHING ★★★★★ Life

DV AWARD OF EXCELLENCE

NEWMEDIA MAGAZINE AWESOME

Popular Mechanics 1996 AWARD

PCG&V '95 HIGHLY RECOMMENDED

FREE Demo Disk
Call 800.306.PLAY, or get the demo right now on the Internet at http://www.play.com

PLAY INCORPORATED

2888 Kilgore Road,
Rancho Cordova, CA 95670-6133
916.851.0800 • FAX 916.851.0801

Although Snappy Video Snapshot is an odd name, it's a trademark of Play Incorporated anyway.
©1995 Play Incorporated

nancial Adviser, January 1995.)

When you apply for a loan, Financenter promises a decision on your on-line or faxed application within 48 hours, and guarantees that if you find a lower rate on the day you lock in, it will match the rate and pay you $100 at closing. However, the minimum loan is $50,000, and at press time, state regulations prohibited loans to residents of Arizona, Nevada, New Jersey, New York and Washington.

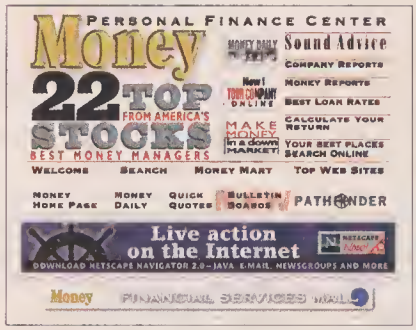
To see how Financenter's rates stack up against those offered in your area—or one you're moving to—visit the Money Personal Finance Center on Time Warner's Pathfinder (*http://pathfinder.com/*) or on CompuServe (Go Finance), which lists the best mortgage rates in 100 metropolitan areas.

A good source of general mortgage and real estate information is the Homebuyer's Fair (*http://www.homefair.com/*), which is sponsored by a group of real estate service firms. It's got solid advice for borrowers and first-time homebuyers, classified ads, links to other real-estate home pages, and valuable articles by former Federal Reserve Board economist Arnold Kling.

But the site's most interesting feature is its Relocation Salary Calculator. Suppose you live in frosty Duluth, Minn., and you're offered a job in Honolulu paying $10,000 more than the $40,000 you make now. The sunshine may be free, but the calculator says you'll need to earn $87,000 in Hawaii to equal what $40,000 buys in Duluth.

Say you received that $87,000 call, though; you still might need information on housing costs, schools and more to make a decision. Although many realtors around the country are now offering on-line listings, only a handful provide community information on the Web; for that, check to see if the local chamber of commerce has a Web page by using a Web search engine, such as Alta Vista (*http://www.altavista.digital.com*) or Yahoo (*http://www.yahoo.com*). On-line versions of local magazines and newspapers also provide good clues. To find magazines in a search engine, enter the name of the city in front of the word "magazine" or "online." For a current list of on-line newspapers, go to Editor & Publisher Interactive (*http://www.mediainfo.com:4900*) and click on E&P Online Newspaper Directory.

To get a sense of the market, try HomeScout (*http://www.homescout.com/*), a searchable index of 85 real estate databases with some 216,000 listings, though only a few photos.



Money *talks: The magazine keeps a running list of the top mortgage rates.*

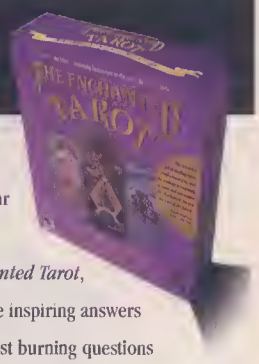
If you're selling real estate, your best bet remains a local agent or the newspaper's classified section, but many agents and papers with Web sites will post your listing on-line for no extra charge. If you're selling your own home without an agent, By Owner On-line (*http://www.magicnet.net/byowner/*) offers a six-month listing with one color photo for as little as $149.

Though John Rutledge doesn't know exactly how he'll sell his new Maryland house, he figures the Internet will play a part: "The more exposure you have, the better off you are." He's not sure if he'll try to sell the house himself on the Net, but he's sure his agent will know the value of a Web address. •

Wayne Harris is a financial writer based in Tallahassee, Fla. You can send him comments on this story by e-mail at wharris@polaris.net.

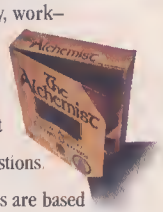
By financing his mortgage on the Web, one homebuyer saved $2,000 at closing.

Get Answers.



Predict your future with *The Enchanted Tarot*, and receive inspiring answers to your most burning questions – about love, money, work– absolutely anything!

Or consult *The Alchemist* for instant answers to life's questions.



Both CD-ROMs are based on best-selling book and card sets by artist Amy Zerner and author Monte Farber.

So, if you've got questions, we've got millions of answers.

Available wherever CD-ROMs are sold. (*Win/Win 95*)

(*The Alchemist* also available in Mac)

For more information:

1.800.591.6100 or

http://www.enteractive.com

Enteractive Inc.

CIRCLE READER SERVICE NUMBER 21 HPC 696

©1996, 3M "Post-it" is a registered trademark of 3M.

Need an easy way to organize and communicate your thoughts on your computer? Try new Post-it™ Software Notes. They work inside your computer just as simply as original Post-it® Notes work on the outside. To download a free 30-day sample, visit our website at http://www.mmm.com/psnotes. Post-it® Software Notes. Available wherever you buy your office software.

Post-it® Software Notes 3M

CIRCLE READER SERVICE NUMBER 1

working at home

TOOLS FOR GETTING THE JOB DONE

Get the fax: 8 reasons PCs beat stand-alone machines

Whether you're receiving orders from customers, sending draft reports to clients or just placing a lunch order with the local deli, the fax machine sitting in your home office probably gets an all-day workout. By the same token, you're at your PC continuously. And yet, if you're like many people, you never give the fax capabilities of your PC's fax/modem much thought. Some people assume it's too much trouble to learn how to use the software; others worry it's a waste to leave the PC on all night to catch incoming faxes. And still others figure fax transmissions will bog down their system, a risk that no one with deadlines to meet can afford, right?

Legitimate concerns, all—or at least they once were. But now it's time to look at the facts. There are more good reasons to fax from your PC than ever before: Programs such as WinFax Pro and FocalPoint provide automated guides, or wizards, to show you step-by-step how to send documents. Simple tools such as Server Technology's $149 Remote Power On/Off switch let you receive after-hours faxes without leaving your PC to feast on kilowatts; this device nudges a computer in low-power sleep mode awake to receive incoming faxes. (Some PCs, such as the IBM Aptiva, have this capability built in.)

And if your PC has a Pentium processor and you run Windows 95, you need not worry about fax activity interfering with your productivity; PCs with this combination are able to process tasks efficiently enough that you can send and receive faxes in the background without causing incessant hiccups in your other programs. And the TAPI (Telephony Applications Program Interface) protocols embraced by Windows 95 prevent a communications program from seizing total control of the fax/modem, which means you no longer have to exit a TAPI-compliant fax program (such as the three Windows 95 products we'll discuss below) if you want to surf the Internet.

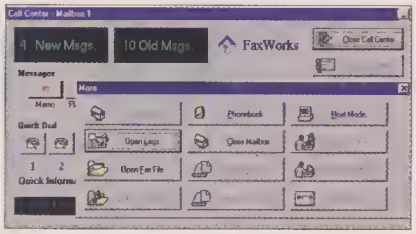
Faxing from your PC doesn't mean you have to give up features you've got on your fax machine, either; on the contrary, you'll probably welcome some of the PC's improvements. For instance, you'll be able to use your printer to output incoming faxes on plain paper—no more thin, curled-up thermal sheets. And don't assume you won't be able to fax information that's on paper; a low-cost

by david d. busch

Illustration by Valerie Sinclair

sheetfed scanner, such as the Visioneer PaperPort or HP ScanJet 4s (both sell for less than $400), lets you turn hard copy into faxable computer files.

Below, we'll look at some of the snazziest tricks in a few popular dedicated fax programs—Eclipse Fax and WinFax Pro for the PC, and FaxPro and FaxSTF for the Macintosh. (As we went to press, Phoenix Technologies decided to stop selling Eclipse Fax as a standalone product, but you should be able to find copies on store shelves for a while.) And integrated communications software suites, which combine powerful fax and voicemail capabilities, sometimes add extras such as Internet tools; popular choices include FaxWorks Pro, Focal Point, ProComm Plus and CommSuite 95 (which incorporates WinFax Pro). You may well have received a "lite" version of one of these programs with your PC's fax/modem, but it won't have all the bells and whistles found in the full-featured versions; the built-in faxing features in Windows 95 and Windows for Workgroups 3.11 are limited as well.



Call on FaxWorks Pro's Phonebook to send one fax to several people.

If you use software for Windows 95 or the Macintosh, you can send faxes simply by dragging files over the program icon.

Getting the message out

Just how does fax software make it easier to send documents? Consider these four options.

• **Send faxes directly from your programs.** Say you've finished up your pitch to a potential customer in your word processor. All the fax programs mentioned above let you send it out without having to first switch back to your fax software. How? Each can be installed as an alternate printer driver within your applications; when you click on the Print option in your word processor, for example, you can select your fax software as the output device. WinFax Pro and CommSuite 95 even insert direct access to a fax option right into some popular programs' File menus.

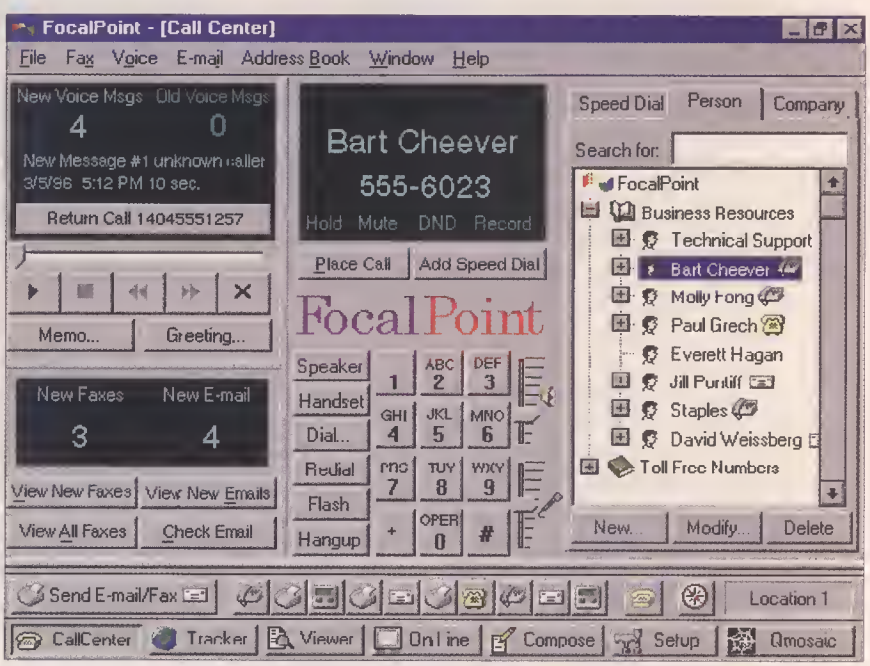
And if you use Windows 95 or the Macintosh, fax programs for those formats let you initiate fax transmissions simply by dragging files from the desktop to the fax software icon.

• **Attach files to a fax.** You can attach files, such as a lengthy market analysis report for a client, to a fax, just as you might with an e-mail message, as long as both you and the recipient use fax software that supports a protocol called BFT (Binary File Transfer). CommSuite 95, WinFax Pro, FaxWorks Pro and FocalPoint all do. (If you want to attach files to a fax going to a fax machine rather than to a fax/modem, try 3D FaxFile, $99 from InfoImaging, 800-966-1140.)

Why attach files to a fax? Unlike e-mail, a fax and attached file arrive at a powered-up PC right away. The recipient doesn't have to find out that a file is waiting and log onto a service to retrieve it, nor continually check e-mail for an eagerly awaited document that is *s-l-o-w-l-y* making its way over.

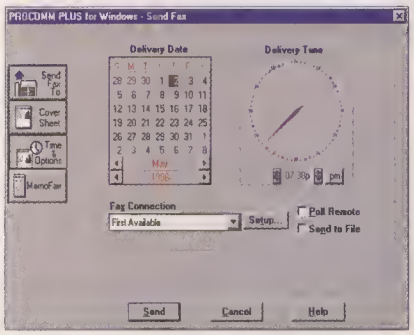
There's also an advantage to attaching files to a fax rather than sending a fax directly from, say, a spreadsheet program: You can send out as many different files originating from as many different programs as you like—for example, a letter from your word processor, a spreadsheet detailing estimated closing costs for the home you're selling and a color photo of the building. All the formatting of the originals will be preserved, and the recipient will be able to edit the document immediately in any application that supports the file format in which it was delivered.

• **Send a fax to a named group of recipients.** Suppose you regularly publish a newsletter covering industry trends for your clients. It's easier to fax the infor-



Think of a full-featured communications suite, such as FocalPoint, as transmission control, letting you initiate faxes and calls from one screen.

mation to an entire group in one fell swoop, rather than prepare individual faxes for everyone on your list. Feature-rich fax machines let you do this, too, but they make it



ProComm Plus can call another fax for messages at a scheduled time.

tedious to indicate recipients and organize them into groups (if, for instance, you want one set of customers to receive just your newsletter and another to get the newsletter along with additional updates).

In all the fax software mentioned above, building groups is as easy as clicking on a name in the program's phone database; you can also quickly create unlimited permutations of group lists.

FocalPoint adds another nice enhancement to this feature: Text messages can be sent to a group of recipients either as faxes or via e-mail, depending on the preferences you set for each person in the program's phone book. This is a convenient way to send out an urgent alert to associates, such as, "The Jones project meeting is changed from 6 to 7 p.m."

• **Offer your clients fax-on-demand.** Imagine your company provides doctors' offices with health-oriented pamphlets and videos. It's likely that people who inquire about your service want information on only a few of your offerings—a dermatologist will want to know about your hair-loss brochures and videos, not diabetes literature. If you use FaxWorks Pro, FocalPoint or CommSuite 95, you can set up fax-on-demand (or fax-back) capabilities so that customers can dial in for just the data they want—you'll have to shell out at least $500 for a fax machine that offers this capability.

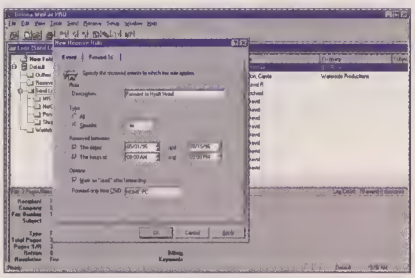
Callers who access FaxWorks Pro's voicemail system, for instance, press 9 to get to the faxback system. They can then choose to have a document faxed immediately using the current phone connection, or enter the number of a different line for the incoming fax.

Receiving benefits

Is it better to send than to receive? Not in fax software; here are four ways the PC lets you better manage incoming documents.

• **Poll other faxes to retrieve documents.** Many home businesses deal with regulars who send in weekly orders. In such cases, it may pay to use the polling features offered by every program mentioned in this story. All you need to do is prearrange a day and time each week for your fax software to call a client's fax and retrieve orders. In your fax software, setting up polling usually requires nothing more complicated than going to the remote retrieval option and entering the client's name, fax number, scheduled pickup time and—if your client wants extra protection for sensitive order data—a password to access the information.

• **Make sure faxes reach you.** To stay in touch with clients when you're on the road, set up your fax software to pass transmissions received at home to you. Several of the programs mentioned here can forward faxes to a hotel fax machine, or even to a remote PC's



Fax on the run: WinFax Pro and other programs forward messages.

fax/modem, if you know in advance what phone number to use. Each program also gives you flexibility; for instance, you can tell it not to forward any messages until you've received a certain number of faxes, or have it send along whatever's

NEW!

Make Music With Your Sound Card!

The Music Software Suite for Windows™

You Get All This on One CD-ROM!

Cakewalk Express™— record, edit and play back great music on your PC! Features a scrolling lyrics window!

Virtual Piano™— an on-screen musical keyboard that you play with your computer keys or mouse.

Virtual Jukebox™— an interactive music jukebox! Create your own playlists!

Cakewalk TECHniques™— narrated live-screen "movies" teach you the basics of making music with Cakewalk.

Songs and Sounds™— 50 load-and-play songs: classical, folk, jazz and holiday favorites. Many with lyrics! Plus 50 audio wave files to add sound effects to your music.

Great for the whole family.
No musical experience required!

Cakewalk Song Station is only $69! (MSRP)
Available at Borders, Comp USA, Lechemere, Micro Center and other fine computer and music stores.

"New Version 5.0 ! Record Your Voice Along With MIDI Tracks !"

CAKEWALK
MUSIC SOFTWARE

PC Multimedia PC · GS · XOX compatible · GENERAL MIDI

CIRCLE READER SERVICE NUMBER 9

been sent to you by 3 p.m. on each day you're away from home.

FaxWorks Pro and CommSuite 95 can both alert you by e-mail or pager when a fax arrives at home—a handy option if you can't specify a single fax number for forwarding in advance. When notified, dial into your PC by phone and have it forward the faxes to the number you punch in.

• **Neatly annotate your faxes.** Each of these programs also offers tools to help you work out project details with clients and freelancers. Suppose a freelance artist creates a draft illustration and faxes it to you for approval; you'll be able to use your fax software's drawing and text-box tools to annotate the document. Before you fax the document back, you can circle something you don't like, for example, then add an arrow pointing to that object and a "sticky note" suggestion that the artist revise it.

• **File away your faxes on disk.** WinFax Pro, Eclipse Fax, FaxWorks Pro, FocalPoint, CommSuite 95 and FaxSTF all help you save space in your file drawers by tucking the documents you receive (and the ones you've sent, if you'd like) into a system of file folders on your hard drive.

Using this feature, you might create one folder that holds all the orders your clients have placed, and another that contains requests for your company's literature. You can make good use of such stored data—for example, you can see which of your clients have ordered your latest product and make follow-up calls to see how they liked it.

If the ability to stay in touch affects how your clients perceive your services—and it almost always does—your computer's fax/modem will help boost your image. •

David D. Busch is a HomePC *contributing editor. You can send him your comments on this story by e-mail at* 75725.1156@compuserve.com.

shopper's guide

Here's how to get more information on the fax software mentioned in this article.

CommSuite 95, FaxPro, WinFax Pro
Symantec's Delrina Group, (800) 441-7234, (541) 334-6054, http://www.delrina.com
$99.95, CommSuite 95 (Windows 95, Windows 95 CD-ROM); $90, FaxPro (Macintosh); $79.95, WinFax Pro (Windows 95, Windows 95 CD-ROM) *Circle #457*

Eclipse Fax
Phoenix Technologies, (800) 452-0120, (312) 541-0260, http://www.ptltd.com
$49.95 (Windows 3.1) *Circle #458*

FaxSTF
STF Technologies, (816) 463-2021, (800) 700-1299
$99 (Macintosh) *Circle #459*

FaxWorks Pro, FocalPoint
Global Village, (800) 329-9675, http://www.globalvillage.com
$99, FaxWorks Pro (Windows 3.1); $129, FocalPoint (Windows 95, Windows 95 CD-ROM, Windows 3.1, Windows 3.1 CD-ROM) *Circle #460*

ProComm Plus
DataStorm Technologies, (800) 474-1547, (314) 443-3282, http://www.datastorm.com
$179 (Windows 3.1) *Circle #461*

Note: Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

Get your
APC®
AMERICAN POWER CONVERSION
award-winning
Uninterruptible Power Supplies

at:
COMPUTER City
SAM'S CLUB
Office DEPOT Inc.
BEST BUY
MICRO CENTER
OfficeMax
PRICE COSTCO
STAPLES The Office Superstore
COMPUSA THE COMPUTER SUPERSTORE
http://www.apcc.com
©1996. APC. All trademarks are the property of their respective owners. APCC004 01
CIRCLE READER SERVICE NUMBER 7

InterGO.
Internet access so easy a parent can use it.

"...InterGO is simple, full-featured, and safe..."

PC MAGAZINE
APRIL 23, 1996.

InterGO is the world's first family Internet solution. Only InterGO lets parents screen unwanted material while allowing adults full access to the Internet. And because it's totally integrated, browsing, E-mail, news, searching, file transfer, virus scanning and content screening are all combined into one easy-to-use package. And that makes InterGO the intelligent choice for everyone. To find out more about InterGO, call us at 214.424.7882. **30-day unconditional guarantee.**

The First Family Internet Solution

Now at CompUSA, Computer City, OfficeMax, Fry's, and Incredible Universe.

InterGO™

HTTP://WWW.INTERGO.COM
BUYME@INTERGO.COM

NEW LOWER PRICE!

You Wouldn't Sky Dive With A $5 Parachute, Would You?

So why jump on the Internet with any old modem? Right now you can get the Total Internet Solution from Hayes™-the inventor of the PC modem. The ACCURA™ 288 Internal Plug-n-Play Fax Modem includes the fully-integrated Quarterdeck® InternetSuite2™ ($49 retail-value) to get you on the NET fast and easy. It comes with CYBERsitter™ to give parental control over NET access, and full multimedia support including RealAudio and QuickTime for Windows video. Also included is Quarterdeck's WebTalk™ ($69 retail value) to let you use your PC just like a phone. You can talk over the Internet with no long distance charges. And because it's from Hayes, you're getting a 28.8k bps modem that delivers fast, reliable online connections.

As Low As $169

28,800 bps-Quarterdeck InternetSuite2-WebTalk -Smartcom™ Data/Fax software

Are You Into Gaming? You can be, with another new modem-our ACCURA 288 DSVD Modem-your Total Gaming Solution. You and a friend can enjoy voice gaming by talking and transmitting data simultaneously during a single phone call. We'll even start you out with Papyrus™ NASCAR® Racing ($75 retail value) absolutely free!

For a **FREE CD** highlighting your ACCURA Internet Adventure, call 800-377-4377. For product information, call *Hayes Fax Response* at 800-HAYES-FX and select document 980.

Hayes ACCURA Modems-Your Passport To Internet Adventures.

Call Hayes Online: 770-446-6336. Hayes Worldwide Web Site: http://www.hayes.com or Telnet to "hayes.com". ©1996 Hayes Microcomputer Products, Inc. P.O.Box 105203, Atlanta, GA 30348. Hayes, the Hayes icon and the Hayes logo are registered trademarks, and ACCURA and Smartcom are trademarks of Hayes Microcomputer Products, Inc. Papyrus™ and the Papyrus logo are trademarks of Papyrus Design Group, Inc. NASCAR Racing is officially licensed by NASCAR® Other trademarks and registration marks are those of their respective companies.

CIRCLE READER SERVICE NUMBER 27

on-line connections

EXPLORING THE INFORMATION HIGHWAY

The real on-line decency acts: People helping people

A sick baby in Peru has friends in cyberspace—generous, resourceful friends who, although they had never met her, banded together to try to save her life.

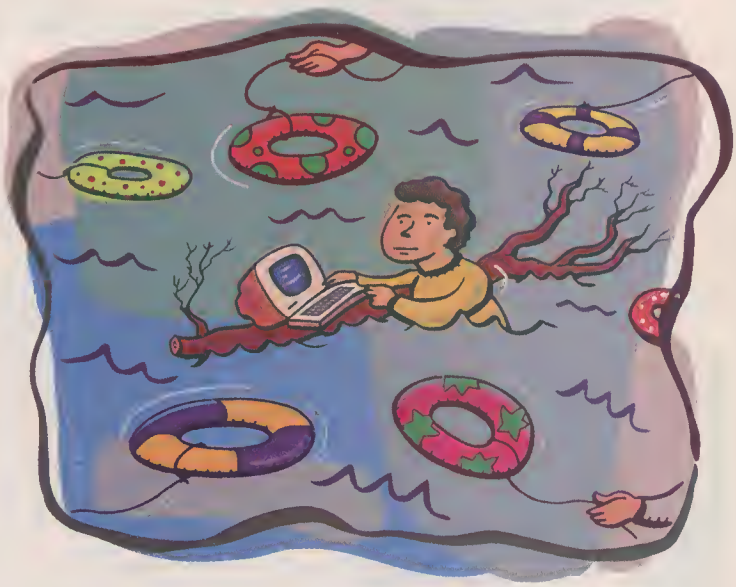
A young man in Santa Clara, Calif., is victimized by a vicious, random assault in his own home and receives help from an extended family of friends he never knew he had.

An entire San Francisco community, devastated by a massive earthquake, benefits from the instant aid of its cyberneighbors around the world.

The Internet frequently gets a bad rap, what with stories about cyberscams, worries about invasions of privacy, and concerns about kids, safety and pornography. What often fall through the cracks, though, are stories about the people in cyberspace who use the power of the Net to try to make their local communities—and the rest of the world—a better place. You can find (and join) them at any of the sites listed on page 144. For inspiration, consider the following three tales—they show how ours may be an increasingly virtual community, but the people in it display real heart.

Take the story of Andrea Horna, now almost 18 months old, in Lima, Peru. Last year, Andrea was diagnosed with a large ventricular septal defect—a hole in the lower portion of her heart. Her illness was compounded by the fact that she was suffering from congestive heart failure—her heart couldn't adequately pump the blood throughout her body. She wasn't gaining weight, and she was breathing too fast. Andrea's condition was serious by itself, but it was gravely complicated because the accessible Peruvian hospitals weren't certified to perform the open heart surgery she needed.

Enter the Internet. Last January, Dr. D. Scott Alenick, a New Jersey pediatric cardiologist and director of pediatric cardiology for the Children's Center at Newark (N.J.) Beth Israel Medical Center, heard the distressing details of Andrea's condition from a family friend. His hospital doesn't perform invasive cardiac surgery on children, so Alenick turned to his on-line colleagues for help. It quickly became a transcontinental consultation.



"The Internet allowed me to reach a wide range of physicians specializing in pediatric cardiology throughout the nation in a short period of time," Alenick explains.

He posted a message detailing Andrea's situation to PediHeart, an e-mail discussion group. Operated by Dr. Adam Birek of Fresno, Calif., PediHeart is open only to medical professionals who treat children with heart disease; almost instantly, Alenick received replies. Among the first was a message from Dr. Greg Stidham, director of the pediatric intensive care unit at the LeBonheur Medical

by charles bowen

Illustration by Andy Levine

Center's International Children's Heart Foundation in Memphis, Tenn. Soon Alenick was following up with LeBonheur's Dr. William Novick, who was certified to perform the delicate surgery.

Despite the lightning speed of electronic communications, the mission was held up by old-fashioned paperwork—the surgery was delayed for weeks as arrangements were made for transportation and a U.S. visa for Andrea and her parents, Ivan and Cary Horna. (Ninety percent of the costs were covered by the Foundation.) Finally, the family boarded a flight in early March from Lima to Memphis.

Today, the Hornas—including a happy, healthy Andrea—are anticipating a reunion with Dr. Novick this summer, when doctors from LeBonheur make a relief trip to treat other children in Peru.

"There's been a lot of negative press about the Internet and the abuses that occur on it," says Alenick. "But the Hornas' story is a prime example of how the Internet's power can be channeled to do something positive. Andrea might well have died without it."

As compassion motivates some people to action on the Net, so, too, does outrage. News of a vicious, senseless assault on a young man in his own home might have been just one more grim, sad story buried on the Santa Clara, Calif., police blotter—except that this victim was a prominent Netizen. The case illustrates how the virtual community resembles any other when a neighbor is in need.

On-line consultations led to surgery that saved little Andrea Horna's life.

Greg Marriott, a 31-year-old software engineer, was working at his home computer late one night last March when he was attacked by three teenage intruders swinging metal clubs and a knife.

"They were just daring each other to do something to me,"

Get involved! 6 on-line centers for community action

Community service is alive and well on the Internet. Here's a diverse collection of on-line resources that apply the power of personal computers in projects for the public good. All invite you to lend a helping hand, be it in your neighborhood or in good causes around the world.

• The National Center for Missing & Exploited Children (*http://www.scubed.com/public_service/missing.html*) is a clearinghouse for information on missing children. The site, working in conjunction with the missing children's hotline (800-843-5678), asks you to view on-line pictures of missing kids, then call the number or send e-mail to *webmaster@scubed.com* if you recognize any of them. However, the organization asks that you not redistribute the pictures, because of concerns for "the feelings of parents who might have to deal with a deceased child."

• America Online's Clubs & Interests area (Keyword: Clubs) links you to a number of volunteer groups, both nationally and close to your home, including America's National Parks, Food for the Hungry, Oprah Online's Be a Volunteer!, and SeniorNet Online. The area also has a direct link to Web sites for the American Red Cross, Literacy Volunteers of America and the Peace Corps.

• CompuServe's Global Crisis Forum (Go Crisis) is devoted to discussions of the world's trouble spots and disasters (sadly, it never seems to go begging for material). The forum grew out of the temporary emergency forums created on CompuServe over the past several years, including the Earthquake Forum, the Persian Gulf Crisis Forum and the Soviet Union Crisis Forum.

• Prodigy's Homelife Bulletin Board (Jump: Homelife BB) discusses topics ranging from children's issues to neighborhood relations. It has an especially active section for the discussion of domestic violence, and abuse of women and children.

• The Activist's Oasis (*http://www.matisse.net/~kathy/activist/activist.html*) offers an extensive collection of links to dozens of causes and issues, research centers, women's rights and student organizations, mailing lists, newsletters and more. The site also provides a breezy electronic pamphlet called "An Activist's Strategic Guide to The Internet" (*http://www.matisse.net/~kathy/activist/actguide.html*).

• Crisis, Grief & Healing (*http://www2.dgsys.com/~tgolden*) was developed by Washington, D.C., psychotherapist Tom Colden as a place for men and women to explore paths to emotional healing after suffering a loss. The site includes excerpts from Golden's columns and booklets, as well as suggestions from other visitors. —*C.B.*

All the Internet you can eat.

$19.95 flat rate.* Unlimited usage.

Pig out.

EarthLink Network™

The coolest, easiest Internet access on Earth.

Plus, every account includes a free 2 meg Web site.
Call now for your free TotalAccess™
software with Netscape Navigator.™

1-800-395-8425

Internet access in over 220 cities in the U.S. and Canada. Software for MACINTOSH, WINDOWS, WINDOWS 95, featuring Netscape Navigator 2.0. EarthLink Network is one of the largest Web space providers in the U.S. and also provides ISDN, Frame Relay, T1 and other Internet services.
** There is a one-time set-up fee of $25.00. Prices for Canada are different.*

NETSCAPE NAVIGATOR INCLUDED

EarthLink Network, Inc. 3100 New York Drive, Pasadena, California 91107. Fax: (818) 296-2470
Info via email: info@ earthlink.net. Live human via email: sales@earthlink.net. Visit our Web site at http://www.earthlink.net

Copyright ©1996 EarthLink Network, Inc. All Rights Reserved. Trademarks are property of their respective owners. Netscape Communications, Netscape Navigator and the Netscape Communications logo are trademarks of Netscape Communications Corporation.

CIRCLE READER SERVICE NUMBER 20

Marriott says, "and it sort of escalated to, 'Let's kill him.'"

Marriott was struck and stabbed 17 times and left for dead, but he managed to dial 911; police quickly arrested three suspects.

Anywhere else, the story might have ended there. But Santa Clara sits in the heart of Silicon Valley, so it's no surprise that word of the attack and Greg's injuries spread rapidly on the Internet. Marriott himself could no longer type—one of the knife wounds had severed a tendon in his hand—but he dictated details to a friend, who transcribed the story and posted it on the Web (*http://www.best.com/~renee*).

Within weeks, more than 1,000 Web visitors responded to a call for action from Greg's friends. Thanks to the ease and speed of on-line communications, the local district attorney's office was flooded with printouts of e-mail messages asking that the 17-year-old suspects be prosecuted as adults.

"The staff in the D.A.'s office just stared with amazement at the piles of e-mail and began calling each other to come look at all the mail that was received about 'the Internet case,'" Greg's friends reported on the Web site.

Impressed by the worldwide show of support, assistant D.A. Stacie Kashevaroff agreed to try to persuade a judge to move the case to adult court. At press time, a decision was still pending. But whatever the outcome, Marriott says he's already won something: a new understanding of community.

"It's hard to express how thankful we all are," say his real-world friends, "both that Greg is OK, and that so many people spoke up."

Of course, on-line altruism didn't begin with the rise of the World Wide Web. On Oct. 17, 1989, long before the Web became a household word, San Francisco suffered its worst earthquake since the beginning of the century; Don Watkins remembers it as if it happened yesterday. "I was frustrated being so close to the quake, being unaffected and yet unable to do anything to help without getting in the way of the professionals." Soon though, Watkins, a longtime administrator of CompuServe's PC Network computing forums, discovered there *was* something he could do—a job that was uniquely suited to the on-line community.

Much of San Francisco's telephone equipment survived the quake, but as many as a million

A man who read a posted plea for help after the San Francisco earthquake got in his plane and delivered food and supplies.

UP TO 1600 x 1200 RESOLUTION · ARNOLD PALMER AT LATROBE · UP TO 16.7 MILLION COLORS · LINKS LS · ALL-NEW MULTIPLE VIEWS · KAPALUA RESORT COURSES · ALL-NEW MODES OF PLAY

NEW LINKS LS: TOUR WITH THE LEGENDS IN SPORTS

What's New About Links LS? Every Leaf, Every Contour, Every Chirp...

...Up to 16.7 Million Colors– New Links LS has unlimited screen resolutions and up to 16.7 million colors—resolution independent means that Links LS can match any monitor's maximum viewing capabilities (even 1600x1200 and higher) and up to 16.7 million colors means the finest in color quality possible. You've simply never seen any golf simulation software this good!

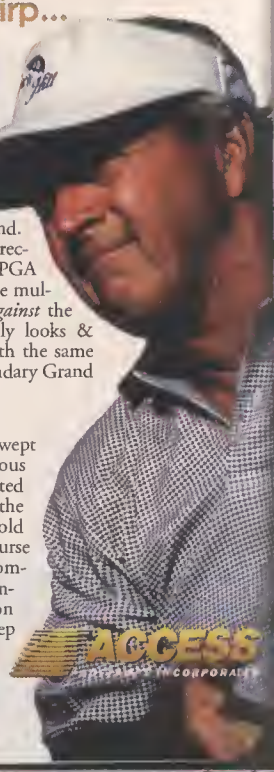
Features include new Post-Shot Reactions and Multiple Views!

...The Most Realistic Golf Simulation EVER– The totally new terrain rendering engine and ball flight give Links LS a realism never before achieved in the gaming industry. As Links has always done, we render not just the hole itself but the entire course and more—you literally can hit your ball a half-mile out of bounds! Now, authentic ground, sand, and grass textures combine with dynamic shadows and fog, to give you a course so lifelike you can almost feel the wet grass! Our engineers have reworked the ball dynamics giving you true-to-life ball flight. Fade your drive just like the pros or watch as your high arching wedge shot actually backs up on the green.

...Arnold Palmer– Arnold Palmer at Latrobe—the first in our Tour Player Series, delivers far more than 18 holes of golf. The Arnold Palmer experience includes a virtual reality tour of Arnie's workshop, office and trophy room. Roam freely in 360 degrees and examine the tools of the trade behind the legend. Listen to Mr. Palmer give insights and recollections about his PGA and Senior PGA tours through Access Software's exclusive multimedia footage. Then tee off *as* or *against* the digitized Arnold Palmer, who not only looks & sounds exactly like Arnie, but plays with the same style and tenacity that defined the Legendary Grand Master of Golf

...Kapalua– Resting on the wind-swept plains of the Golf Coast, two glorious Hawaiian Island courses have been selected to inaugurate Links LS as the first in the series of Resort Courses. The Arnold Palmer-designed Kapalua Village Course has a distinctly European flavor and a commanding view of the West Maui mountains. The 7,263 yard Kapalua Plantation Course showcases expansive slopes, deep valleys and unique native vegetation.

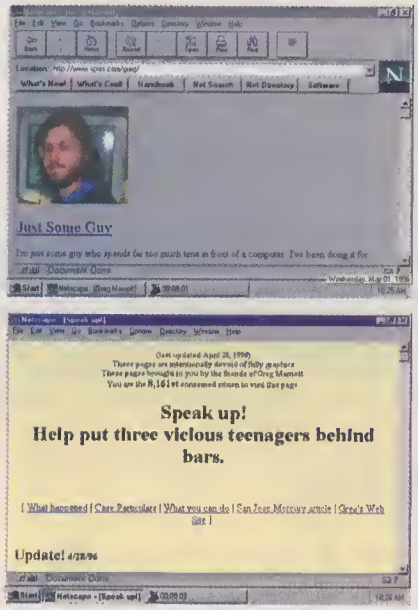
For more info, call 1-800-800-4880



ACCESS SOFTWARE INCORPORATED

long-distance calls were flooding into the area every minute, making it nearly impossible for anybody to get through. Local calling, however, was unaffected. To help, computer users in other regions of the country created "phone trees," posting messages in various forums on CompuServe offering to help quake victims contact relatives. California residents who were unable to dial out on the overburdened long-distance lines could instead place a local call to connect to CompuServe, where they were able to leave electronic notes for volunteers who would relay the messages to friends and family around the world.

Watkins, meanwhile, helped open a special Earthquake Assistance Forum; by noon on Oct. 18th, it was up and running as a clearinghouse for news reports, information on relief efforts, help in locating missing persons, and details on transportation in and around the area. The forum also provided material aid: One user left a message saying he desperately needed to reach a hard-hit area. Another forum visitor read the plea and volunteered to fly his fellow subscriber, along with much-needed food and medical supplies, to the area in his private plane.



When Greg Marriott was assaulted at home, Netizens took up his cause.

"We learned a lot about providing service in a crisis," says Sharon Baker, then a product manager at CompuServe. "It was amazing how everyone pulled together."

That lesson serves as a legacy today. While the earthquake forum closed a few weeks after the incident, CompuServe now routinely establishes special forums and news features in times of emergency, as do America Online and many independent individuals and organizations on the Internet.

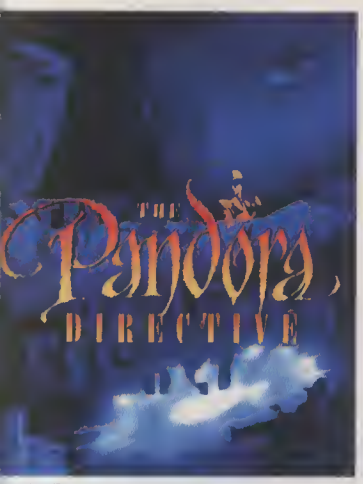
Compassion has indeed become commonplace in cyberspace. For all the hubbub about "Communications Decency," acts on the Internet speak louder than words. •

Charles Bowen is a HomePC *contributing editor. You can send him comments on this story by e-mail at* cbowen@aol.com.

2 LEVELS OF PLAY · 3 NARRATIVE PATHS · 7 DIFFERENT ENDINGS · The Pandora Directive · 23 UNIQUE CHARACTERS · 58 PLAYABLE ROOMS · 360 DEGREES OF FREEDOM

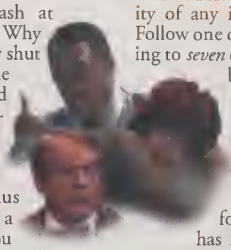
THE PANDORA DIRECTIVE: PLAY IT AGAIN, AND AGAIN...

Tex Murphy returns in the most replayable interactive movie ever made!



An Enormous Six-CD Cinematic Epic!

The Story– What is the truth behind the rumored UFO crash at Roswell, New Mexico? Why did the military suddenly shut down and seal off the Roswell complex? And why the frequent references to the lost Mayan civilization? It starts out like a hundred other cases. $500 a day (plus expenses) to track down a missing person. As you pick up Thomas Malloy's trail, you realize you're not the only one looking for him. By the time you discover that he's ex-military and knows what really happened on July 6, 1947, it's too late. The government's biggest secret is loose and you're trapped in a deadly game of cat and mouse with the most powerful and ruthless agency in the world. Based on the novel by Aaron Conners.



The Features– The most replayability of any interactive movie to date! Follow one of *three* narrative paths leading to *seven* different endings. Choose between *two* levels of play. The first level offers a complete on-line hint system to help you through the tougher puzzles. The second level—for expert gamers—has no hints available, but rewards players with higher bonus points, extra puzzles and locations. Our unique "Virtual World" engine allows you to slip under desks, rifle through drawers, and see the flies tanning in the light fixtures. Without the restrictions of rendered paths, you can explore Tex's three-dimensional world with full freedom of movement.

The Cast– Enjoy the difference Hollywood cinematography, acting, editing, stunt work, music, and direction make as the world of Tex Murphy becomes amazingly real. Starring Barry Corbin (*Northern Exposure, War Games*), Tanya Roberts (*View to a Kill, Beastmaster*), Kevin McCarthy (*Invasion of the Body Snatchers, Just Cause*), and Chris Jones (*Under a Killing Moon, Martian Memorandum, Mean Streets*) as Tex Murphy. Directed by Adrian Carr (*Quigly Down Under, Man from Snowy River, The Power Rangers*). Original music by Richie Havens and Nicole Tindall.

For more info, call 1-800-800-4880

ACCESS SOFTWARE INCORPORATED

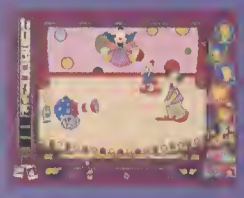
CIRCLE READER SERVICE NUMBER 2

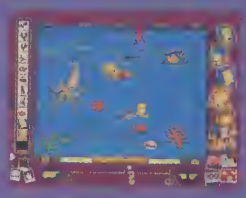
the Simpsons™ CARTOON STUDIO

★ BE A BIGSHOT CARTOON DIRECTOR, MAN! ★

COOL CARTOON, MAN!

THE SIMPSONS CARTOON STUDIO MAKES CREATING ORIGINAL SIMPSONS EPISODES AS EASY AS PIE!





- ★ 45 lovely locations from the Power Plant to the Kwik-E-Mart.
- ★ 270 important props! Including radioactive squirrels, Squishee machines and piles of donuts.
- ★ Burps! Laughs! Music! Sound effects and over 20 voice clips for each character.

Send your masterpiece to your friends over the Internet so they can watch your cartoons on their computers – whether they have The Simpsons Cartoon Studio or not.

MATT GROENING

Distributed by:

20th Century Fox Home Entertainment™ FOX INTERACTIVE™

http://www.foxinteractive.com

THE SIMPSONS™ &© 1996 Twentieth Century Fox Film Corporation. All Rights Reserved.
THE SIMPSONS CARTOON STUDIO™ & © 1996 Fox Interactive, Inc. All Rights Reserved.
© 1996 Twentieth Century Fox Home Entertainment, Inc. All Rights Reserved
"Twentieth Century Fox," "Fox" and their associated logos are the property of Twentieth Century Fox Film Corporation.

fun and games

GREAT ESCAPES FOR GROWN-UPS

BY JULIE COHEN

A new Zork state of mind

Zork's Great Underground Empire has come a long way since it first sprang up on an MIT computer network nearly 20 years ago. Sentimental gamers may look back on the days when Zork programs consisted of white words typed on a black screen as a sort of golden age, but for the rest of us, Nemesis brilliantly breathes new life into this cult favorite.

Although it's still aimed at hardcore adventurers, the newest Zork chapter downplays the series' bizarre vocabulary, making only passing reference to classic Zork characters (though when you wander in the dark, you still may wind up as a grue's dinner). Instead, the game reveals the story of four great alchemists, their deaths at the hands of The Nemesis, and their captured souls, which you will attempt to set free. The tale, with its medieval trappings, relies on familiar themes that anyone with a rudimentary understanding of science should be able to follow.

But rest assured that one element of the Zork tradition is intact: The puzzles are great. With 65 of them spread among five worlds, Nemesis is a game adventurers can sink their teeth into. Of course, it's not just quantity that counts; these puzzles have depth and style, too.

★★★★

Zork Nemesis

Adventure

Rather than treasure hunts and bizarre combinations of inventory objects, they present cryptic codes to decipher, and require logical prowess. Solutions aren't easy, but superbly positioned visual and audio clues give the puzzles great "Aha!" value (as in, "Aha! So *that's* what I do next!").

You'll find exquisite detail n the worlds where the action takes place—the Temple of Agrippa, Frigid River Branch Conservatory, the Monastery at Steppinthrax, the Castle Irondune and the Gray Mountains Asylum. Each setting is unique, from the art-filled monastery to the cold, blood-stained asylum. The graphics—60 minutes of perfectly integrated video clips, 360-degree scrolling panoramas and first-person flybys—are as well done as the puzzles.

Whether you're a longtime fan of the MIT-era Zork or the previous graphical version, Return to Zork (see Fun and Games, June 1994), or even if you've never visited Zork before, Nemesis will keep you tied to your PC for many long nights—just avoid any grues looking for a midnight snack.

$54.95 (Windows 95 CD-ROM, DOS CD-ROM) from Activision, (800) 477-3650, (310) 473-9200, http://www.activision.com. *Circle #413*

Armored and hammering

Fire up Silent Thunder: A-10 Tank Killer 2, and in minutes you'll be skimming above inferno-hot desert sands, blasting enemy vehicles to smithereens in a cloud of oily smoke, or threading your jet between Colombian mountains in search of drug runners.

While the game breaks no new ground, its hangar full of battle options gives practiced fliers a chance to flex their finely honed skills. At the same time, Silent Thunder is so easy to learn that rookies will find themselves airborne in a flash.

★★★

Silent Thunder: A-10 Tank Killer 2

Flight simulator

Twenty-four challenging missions await your fast, flexible A-10 turbofan jet fighter. The weapons are nasty, ranging from cluster bombs and napalm to Sidewinder missiles; also at your disposal are maps, status screens, and a selection of cockpit and external camera views (including a mobile

Once a series of black screens and white text, Zork Nemesis gives rise to stellar graphics.

★ Reading the stars

Each product reviewed in Fun and Games, Lifestyles + Learning, Kid Raves and Gear + Gadgets is rated on a scale of 0 to 4 stars. All prices are suggested or estimated retail.

Hints & misses

Need help in your strategy for foiling The Nemesis or sniffing out treasure? Both Zork Nemesis and Treasure Quest (see review, page 152) link to Web sites that promise clues to help you move ahead in the games.

Each site was still in development at press time. Zork's link (*http://zork.activision.com*) will soon hold game tips, but on our visit it featured only a few scenes

(not including the one above) and a link to Activision's home page, where four puzzles reveal game clues.

Meanwhile, the Treasure Quest site (*http://www.treasurequest.com*) led us to other pages and hints, from a "TQ Confirmer" clue hidden on different game-related home pages to a long narrative that gives away the first room's quotation. But, as in the game itself, many hints are obscure, and may not be worth the time—and money—it takes to find them. —*J.C.*

floating camera for you to position). After a few missions, you'll learn handy tricks—such as how to decelerate during a flyby in order to pick through your foe's anti-aircraft defenses and wipe out multiple targets in a single pass.

But for all the fancy features at your disposal, the real reason Silent Thunder is a such a joy for battle-game fans is that the options don't intrude on the gameplay: the cockpit controls are always easy to read. Beginners can earn their wings by choosing an invincible aircraft and taking unlimited ammo aloft to face mild aggressors, while aces can increase the difficulty setting for heart-pumping sorties.

If you're tired of Microsoft Flight Simulator and want a bigger challenge than landing at O'Hare in one piece, you won't be disappointed if you take Silent Thunder under your wing. —*David D. Busch*

$59.95 (Windows 95 CD-ROM) from Sierra On-Line, (800) 757-7707, (206) 649-9800, http://www.sierra.com. Circle #414

Forming a more perfect union

Look around. Is this the best civilization has to offer? It's an age-old question with an obvious answer: Civilization can always be improved upon. For proof, look no further than Sid Meier's Civilization II.

Veteran Civilization players may be tempted to dive right into the popular empire-building strategy game's sequel without reading the manual, but be forewarned—ignore the book and you may catch only the game's obvious graphical improvements, including video clips, a new 3-D perspective and characters that provide you with information on the spot.

★★★★

Sid Meier's Civilization II

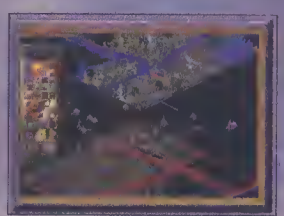
Strategy

The building blocks of your society, from trading to fighting, are newly realistic in other ways, too,

Civilization II advances on its predecessor's look—even CD-ROME wasn't built in a day.

AND ON THE 8TH DAY, HE SPLIT TO MAUI, AND LEFT YOU IN CHARGE.

Don't forget to feed the fish.



BUILD AND MANAGE TWO PLANES, HEAVEN AND HELL, SIMULTANEOUSLY.

KEEP SOULS HAPPY BY PROVIDING THEM WITH THE REWARDS AND PUNISHMENTS THEY EXPECT, LIKE DREAMADISE.

DISASTERS INCLUDE DISCO INFERNO (PICTURED), HELL IN A HANDBASKET AND HEAVEN NOSE.

INTRODUCING Afterlife™ THE LAST WORD IN SIMS.

Afterlife. The first world-build[illegible] simulation that lets you m[illegible] two planes of "unreal estate"– heaven and hell–simultaneous[ly]. Start with the Gates of Heave[n] and Hell, zone in blocks of Sins or Virtues and build roads. Soon, the dearly departed arrive in droves. Keep them happy and you flourish. Lose too many and it's a visit from the Four Surfers of the Apocalypso. Add a half-dozen disasters, money problems, lost souls, headaches on the planet below, and things get complicated quick. With over 200 artistically rendered rewards, nearly 300 detailed tiles and buildings, and more maps, graphs and charts than you can shake a pitchfork at, you're in for infinite hours of game-play.

LucasArts

TEEN T AGES 13+

WINDOWS 95, DOS & MACINTOSH CD-ROM

http://www.lucasarts.com

Afterlife™ and © 1996 LucasArts Entertainment Company. All Rights Reserved. Used Under Authorization. The LucasArts logo is a registered trademark of LucasArts Entertainment Company.

CIRCLE READER SERVICE NUMBER 35

making play more rewarding. For example, your computerized rivals remember previous negotiations. If you break a treaty once, word travels fast—it will become harder for any other character to trust you.

Civilization II involves tough decisions whether you're preparing for war or cooperating with neighbors over trade negotiations. Your score depends on how far your society advances, not just how many enemies you defeat. It all adds up to complicated gaming, but Civilization II's built-in scenarios let you strengthen your skills quickly.

And if you should make too many wrong choices and face annihilation? Civilization II has a ready cheat mode, so you won't have to learn any mysterious "secret" codes. Now *that's* a sure sign of an advanced Civilization. —*Stuart Gibbel*

$48.99 (Windows 3.1 CD-ROM) from MicroProse, (800) 879-7529, (410) 771-1151, http://www.microprose.com. *Circle #415*

Fool's gold

I wouldn't recommend Treasure Quest for a million bucks—which is a shame, because that's what Sirius Publishing is promising to the player who finds the most elegant solution to this drab mystery.

The road to riches runs through a 12-room mansion; it's your job to explore each room and piece together a series of audio and visual clues referring to a famous quotation in that room. Figure out all 12 quotes and submit them to Sirius with a detailed explanation of how you solved each one; the first player to solve the mystery and provide the best explanation wins.

Treasure Quest
Puzzle

Trouble is, it's hard to imagine anyone playing this for long without such a bribe—the puzzles are deadly difficult and graphically flat. Instead of presenting illustrated rooms for players to explore at random, Treasure Quest uses a patchwork of photos, words, letters, numbers and the occasional video clip to represent each location. It's difficult to figure out where you are, much less devise a logical approach.

In the game room, for example, you'll see photos of a chessboard, a billiards table, a Scrabble game in progress, and a deck of cards with a king and queen showing. Most of these items are puzzles, but it's not clear what you have to do to solve any of them. You certainly won't *play* the games in the pictures; rather, you have to find hot spots on the photos that lead you to other photos, then interpret words that appear near those pictures. The words provide clues to solving the room's quotation, but finding them is confusing—and worse, it's a bore.

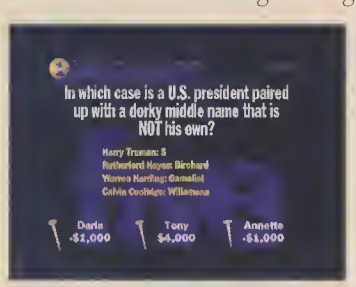
The *Official Resource Guide* provides only general hints, but

adds $20 to the disc's $50 price—it's not worth the million-dollar longshot. Save your "dollar and a dream" for the lottery.

$49.95 (Windows 3.1 CD-ROM, Macintosh CD-ROM) from Sirius Publishing, (800) 247-0307, (602) 951-3288, http://www.treasurequest.com. *Circle #416*

Game overtime: Extending the shelf life of 4 favorites

Ever wonder what you'll do for an encore after you finally complete the last round of a great game? Luckily, many popular programs offer add-on levels, generally for $20 or less, that can double your fun. Here are four excellent examples:



Access Links 386/Microsoft Golf Add-on Courses. From Alberta's Banff Springs to Chicago's Cog Hill to Monterey's Pebble Beach, Access offers 15 additional golf courses for its Links 386 and Microsoft Golf games. Digitized photographs of each hole make you feel like you're right on the course (800-800-4880, *http://www.accesssoftware.com*).

Descent II Panic Levels. To get you past the panic of finishing the game, Parallax Software offers a new Descent II level every week. These episodes won't work with the shareware version of the game, but if you have the commercial program, the extra levels are free for the downloading (313-663-9120, *http://www.pxsoftware.com/panic/index.html*).

H!Zone. Heretic and Hexen fans can enjoy 12 new episodes and 250 new levels, customize the games, edit levels, and run Doom, Doom II and Heretic levels with Hexen thanks to this extension package (612-559-5140, *http://www.wizworks.com*).

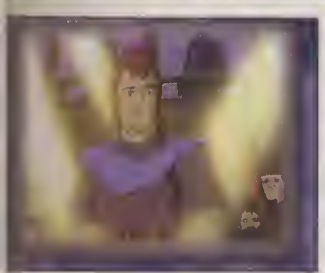
You Don't Know Jack Question Pack. If you've gotten to know the original Jack all too well, the You Don't Know Jaek Question Pack offers the same irreverent humor in 400 new pop-culture and classical trivia stumpers (800-344-5541, *http://www.berksys.com*). —*J.C.*

Sometimes only a hero can bring a family together

"Shadoan has all of the imagination, flair and graphics you would expect from the creator of Dragon's Lair"
-Steven Greenlee, Editor; Computer Game Review

"It leads the field in animated interactive adventures"
-Game Pro Magazine

Shadoan™



Easy-to-use "plug & play" interface will have every family member playing the game in minutes

Over 70 minutes of interactive animation and dialogue plus plenty of fun-filled puzzles

More than 66 medieval locations to visit within a wonderful storyline

Interplay™
BY GAMERS. FOR GAMERS.™
www.interplay.com

MACPLAY
www.macplay.com

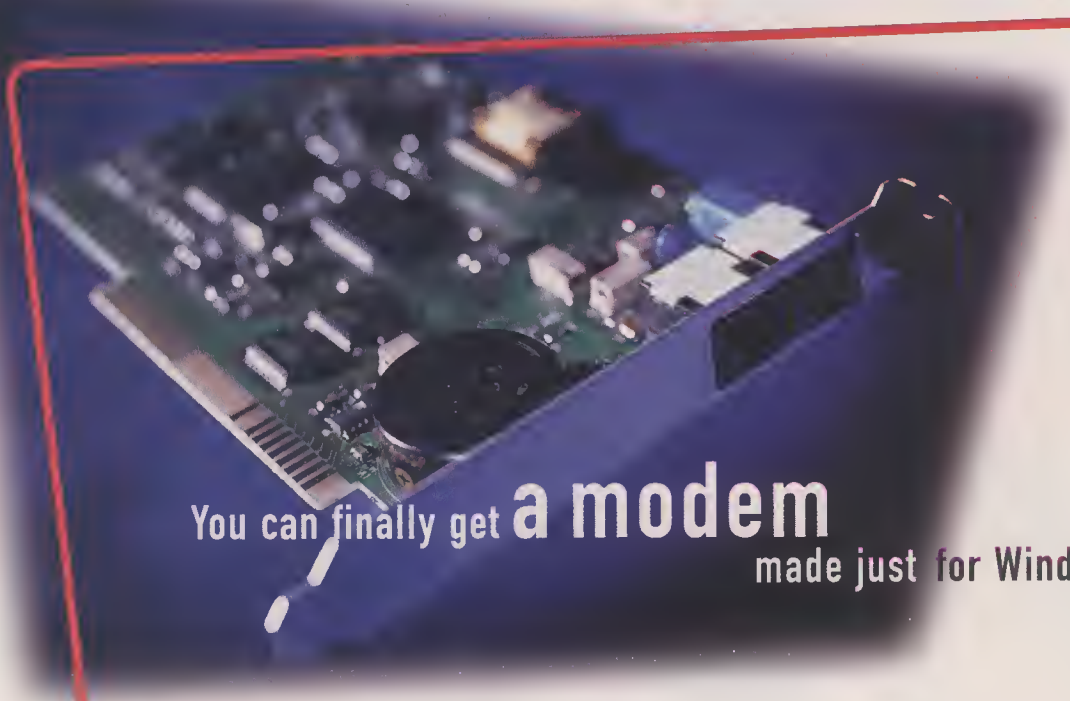
CD ROM

PC and Macintosh Compatible

RATING PENDING RP

© 1996 Interplay Productions and Virtual Image Productions. All rights reserved. Shadoan is e trademerk of Virtual Imege Productions. All rights reserved. Original music score by Doug Bestermen, Brian Besterman and Martin Erskine. MacPlay and Interpley are trademerks of Interplay Productions. All rights reserved. All other trademarks are the property of their respective owners.

CIRCLE READER SERVICE NUMBER 34



You can finally get a modem made just for Windows®.

(Of course, you'll have to pay a little less for it.)

O.K. You know where you want to go. Now, how fast do you want to get there?

With the new Winmodem™ from U.S. Robotics, you actually harness the power of your Windows operating system to fax, check E-mail, and search the net faster and more efficiently than with any other modem.

Not to mention, of course, more affordably.

Plus, unlike other modems, Winmodem gives you the proven compatibility and reliability of Sportster,® the number one selling modem in the world. It's easy to install, it's Microsoft Plug and Play certified, and it can be upgraded instantly to 33.6 Kbps with one call to the U.S. Robotics BBS.

What's more, the exclusive U.S. Robotics *Connections* CD-ROM offers you a wide selection of online products for both home and office.

To learn more about the Sportster Winmodem, or any of the other ways U.S. Robotics takes the limits off how fast you can get what you want, call us at 1-800-DIAL USR, or visit us at www.usr.com.

U.S. Robotics®

NO LIMITS

Sportster Winmodem requires use of the Windows operating system. U.S. Robotics, the USRobotics logo and Sportster are registered trademarks and Winmodem is a trademark of U.S. Robotics. All other product names are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies. Product specifications subject to change without notice. Contact your U.S. Robotics representative for current product information.

lifestyles + learning

THE PC WAY

BY SHARLENE JOHNSON AND CHARLES BOWEN

Going out on a limb to dig up your roots

Deluxe Edition II—the latest offspring of the Family Tree Maker clan of genealogy software—is actually a set of triplets. In addition to Version 3.01 of Family Tree Maker, the top-selling genealogy program, the package includes two other components: the FamilyFinder Index—a searchable list containing 115 million names—and a set of four discs, part of a new Family Archives collection, packed with Social Security death records and existing family trees for research. The product's proud parents at Broderbund Software boast that the trio makes "locating and viewing historical information about your ancestors...as easy as typing a name." Remember, though, that parents do tend to brag.

Family Tree Maker remains the golden child of this brood—it's a snap to use, and has an abundance of help features and simple navigation tools. Odds are you'll be able to use it to plant the seeds of your own tree and track birthdays and anniversaries without even opening the 450-page-plus manual. And the program's Scrapbook area conveniently stores scanned photos and documents, as well as sound and video clips.

If you're more interested in researching your roots, though, the software is less surefire. One user says he located 10 ancestors in an hour, but others may need to draw on a larger set of Family Archives beyond the discs in Deluxe Edition II, all sold individually for $20 to $50.

★★★

Family Tree Maker Deluxe Edition II

Genealogy

I found promising leads in the FamilyFinder Index, which indicates the Family Archive disc that might contain information for further research; in fact, I found *hundreds* of potential matches, but they're hard to confirm without the indicated Family Archive, which you may have to buy separately. Luckily, all the discs have a 90-day money-back guarantee.

If the Family Archives work for you, Deluxe Edition II is a bargain. And even if they don't pan out, it's not a total loss—Family Tree Maker is a fine program. If the genealogical research component isn't vital, consider the basic version ($39.99, Windows 3.1; $59.99, Windows 3.1 CD-ROM) before you branch out into the deluxe package. —*S.J.*

$99.99 (set of five discs, Windows 3.1 CD-ROM) from Broderbund Software, (800) 521-6263, (415) 382-4600, http://www.familytreemaker.com. *Circle #417*

Family Tree Maker Deluxe Edition II adds helpful—if imperfect—discs for genealogical research.

Dictionary's value speaks for itself

In the early 1990s, software companies took advantage of CD-ROMs' enormous data capacity to introduce impressive digital dictionaries that listed multiple definitions, parts of speech, word origins and sample sentences. But when critics complained that the software was no better than the original—and typically less expensive—printed volumes, publishers were hard-pressed to argue.

Now Softkey International has just the thing to silence naysayers: a digital dictionary that talks.

With the American Heritage Talking Dictionary, you no longer have to decipher an obscure printed pronunciation key to learn how to say a word. Just click on an icon, and you'll hear the word in the voice of a trained linguist.

★★★★

The American Heritage Talking Dictionary

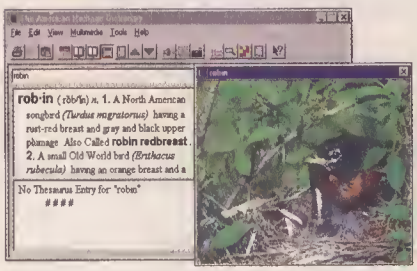
Reference

Audio alone would make the dictionary a delight, but it's not the only reason this disc is a landmark. Along with the 200,000-word dictionary, you get an electronic

thesaurus with more than 1.5 million synonyms. And all the text is hyperlinked—click on *any* word in a definition or a synonym list to find it in the dictionary immediately.

But for me, the true standout feature is Word Hunter, which helps expand your understanding of a word or concept. For instance, ask Word Hunter to look up "combustion," and in addition to defining the word itself, it shows you that the term pops up in 50 other definitions, including "automobile," "blast furnace," "breathe" and "carburetor."

The disc also includes a Dictionary of Cultural Literacy to help you trace common references and phrases to their sources in the Bible, economics, medicine, philosophy, religion, the sciences and elsewhere. And while this complete language resource includes a number of words it frankly identifies as "obscene," you can block their display and pronunciation if you'd rather your PC didn't use such salty language. —*C.B.*



$79.95 (Windows 95 CD-ROM) from Softkey International, (800) 227-5609, (617) 494-1200, http://www.softkey.com. *Circle #418*

Good intentions won't relieve your tension

Feeling pressured? Underappreciated? Overworked? Do you need some tips to help you cope? Take our advice: Avoid Manage Stress. If you're a Type A personality—one who typically responds poorly in difficult situations—this disc is only going to frustrate you.

As sound as the suggested stress-management techniques are, they're hardly new—you'll find essentially the same tips in hundreds of inexpensive paperbacks or magazine articles on the subject: Maintain a positive attitude, make time for fun, work smarter not harder, get plenty of exercise, eat right and so on. And although the program is easy to navigate, the information here is doled out piece by irritating piece, sometimes a mere sentence or two at a time. Constantly clicking on the forward button and waiting for the next video segment to load can quickly drive anyone to distraction and new levels of restlessness, a classic symptom of—you guessed it—stress.

★1/2
Manage Stress
Self-help

The disc's multimedia elements—ample videos, clear narration, snappy illustrations and fun cartoons—are all first-rate, but a slick look isn't enough to justify a suggested price of nearly $50. Likewise, the interactive elements, including several multiple-choice quizzes and a "game show" called Stress for Success, make the disc more fun, but no less superfluous. In most cases, the questions serve only to reinforce what you've learned elsewhere rather than teach you anything new about your own stress levels and ability to cope; how much insight can you realistically expect to get by answering questions such as, "You work better when you're rested, right?"

To be fair, the program's developers would tell you that software doesn't cause stress—an impatient attitude is the real cause of the problem. But unless you've got the demeanor of a saint, you'll really need a stress reducer after shelling out half a C-note for two-bit psychology. —*S.J.*

$49.95 (Windows 3.1 CD-ROM) from Midisoft, (800) 776-6434, (206) 391-3610, http://www.midisoft.com. *Circle #419*

Two medical discs get first-rate treatment

When it comes to medical reference guides, CD-ROMs are just what the doctor ordered. What better format is there for technical terms that require lengthy explanations? And was a topic ever more ripe for illustrations and video, from pictures of skeletons, muscles and the parts of the brain to animation revealing how the heart and lungs work?

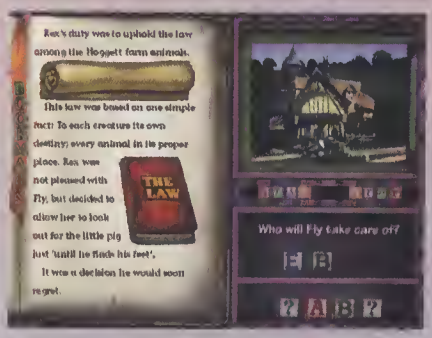
That said, it takes creative programming to present the basic facts and figures gracefully. Used well, a computer's interactivity can lead to

Lookin' for kin

According to an *American Demographics Magazine* survey, more than 40% of American adults express an interest in genealogy, and 100 million of us are tracing our family trees.

BABE™ Smart little pig! Big New MOVIEBOOK™!

Interactive Storybook and Activity Center on CD-ROM



50 page storybook with video clips, animation, dictionary definitions, word scrambles, and more.

Find the hidden objects, then print the picture to color in.

Mix and match Silly Skins for our barnyard friends, and five other activities.

Your children want to play on the computer. You want them to read. They want fun-filled activities. You want them to have fun reading. Give your child the very best of both in the enchanting story of BABE™, the smart little pig who wants to be a sheepdog.

Linking literacy and play, the BABE Interactive MOVIEBOOK™ is a captivating CD-ROM reading experience. Your children will play, laugh and read (or be read to) for hours as they discover the adventures of Babe and his barnyard friends in a 50-page storybook including 20 minutes of video clips, word puzzles, dictionary definitions, charming animation and illustrations. Seven fun activities and games on Hoggett farm complete an adventure that will engage your little readers (and players) again and again.

Introductory Price $19.95

LOOK FOR THE SPECIAL "FREE WILLY 2" AND "BABE" BUNDLE OFFER!

Get two Interactive MOVIEBOOKS™ with our special offer for a limited time only! It's a Double Deal for $29.95, while supplies last.

Windows 3.1 and '95 compatible

for ages 4 and up

Available from fine retailers everywhere or call:

1-800-877-4778

SOUND SOURCE INTERACTIVE

Babe A Little Pig Goes A Long Way TM & © 1996 U.C.S. Free Willy 2: The Adventure Home, characters, names and all related indicia are trademarks of Warner Bros., © 1995 Warner Bros. Productions Ltd., Monarchy Enterprises B.V., Le Studio Canal +. Free Willy 2: Basel Poledouris. © 1995 Warner-Tamerlane Publishing Corp. (BMI) and New Enterprises. All Rights Administered by Warner-Tamerlane Pub. Corp. (BMI). Interactive MovieBook & logo and Phelix character TM & © 1996 Sound Source Interactive. All Rights Reserved. Distributed by Acclaim Distribution, Inc. One Acclaim Plaza, Glen Cove, New York 11542-2708. Acclaim is a registered trademark of Acclaim Entertainment, Inc. Product Licensed for sale Worldwide.

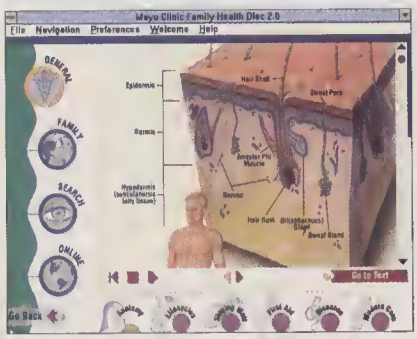
a disc that gives the subject life, and it's nice to see both Mayo Clinic Family Health and the American Medical Association Family Medical Guide rise to the challenge: Each offers information in a way that lets you interact on a personal level, as if you were talking privately to your own doctor.

At their core, both discs let you identify symptoms of a medical condition and, after answering a few questions, zero in ou possible causes. For instance, suppose your child has developed a cough. The AMA Guide asks, "Is your child's temperature 100° or above?" If you select Yes, it asks, "Is your child breathing very rapidly or gasping for air?" Answer No, and the program responds, "This may be a viral respiratory infection such as influenza"; answer Yes, and it advises, "Call your physician now—your child may have a lung infection. See 'acute bronchitis' or 'pneumonia in children.'" The Mayo Clinic disc reaches similar conclusions, listing among the possible causes bronchiolitis, a cold and croup; it then supplies background information on each.

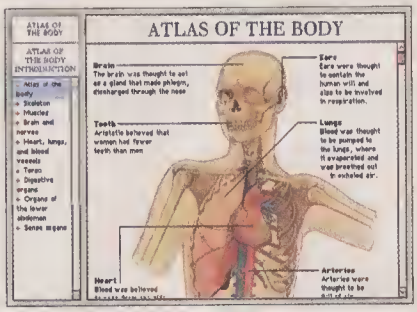
★★★1/2
Mayo Clinic Family Health
Medical reference

★★★
American Medical Association Family Medical Guide
Medical reference

The AMA disc gets higher marks for presentation, especially for its attractive on-screen flow charts that help you follow all the alternatives. In contrast, while the Mayo Clinic disc dishes out similar substance, it does so in a less interesting, text-based Q&A style.



But the Mayo disc boasts a healthier store of information. Ask it about hyperthyroidism, for instance, and you'll get 3½ single-spaced pages of text, with dozens of hyperlinked sidebars on everything from Graves' Disease and goiters to atrial fibrillation and iodized salt. The same subject gets only two pages in the AMA disc, with no hyperlinked references. On the other hand, some may find the AMA's friendlier, less formal text easier to understand.



Another advantage of the Mayo disc is its inclusion of a few extras. Along with a poison guide and a drugs and prescription section, the disc includes a personal history option for notes on your family's medical episodes. You also get a collection of animated sequences on potentially helpful and occasionally sensitive subjects such as how to perform the Heimlich maneuver, how to manipulate ear drops and how to use a suppository.

Of course, neither disc is meant to take the place of a physician—repeatedly, both discs advise you to see your doctor in serious cases. But you may feel better just knowing either program is in the house. —*C.B.*

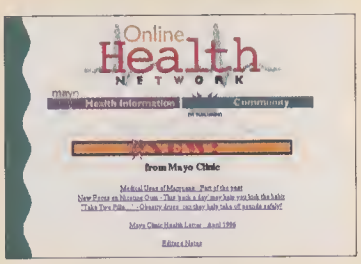
Mayo Clinic Family Health, $39.95 (Windows 3.1 CD-ROM, Macintosh CD-ROM) from IVI Publishing, (800) 432-1332, (612) 996-6000, http://www.ivi.com. *Circle #420*

American Medical Association Family Medical Guide, $39.95 (Windows 3.1 CD-ROM, Macintosh CD-ROM) from D.K. Multimedia, (800) 225-3362, (212) 213-4800, http://www.dkfl.com/. *Circle #421* ●

Mayo on the Net

Besides the Family Health CD-ROM, IVI Publishing and the Mayo Clinic have teamed up to create the Online Health Network (*http://healthnet.ivi.com/*), a friendly, free source of medical information on the Web.

The site has four main sections. In the Newsstand, you'll find the Mayo Online Health Magazine, with timely articles on four "Hot Topics" (Pediatrics, Adult, Prevention and Nutrition); "Ask the Physician" (answers to selected queries are posted on the site); and the "Health Letter," with more tips, updates and general advisories. New items are posted each week.



Check the Special Events section for chat sessions with Mayo physicians. The Library holds the site's archives (keyword searches are available). Finally, the Community Center has links to other medical organizations.

And if your IVI CD-ROM is ailing? The site also has a direct e-mail link to technical support. —*Steven Korn*

TOTAL INTERNET

$15.95* MONTHLY

The lowest flat monthly national Internet rate

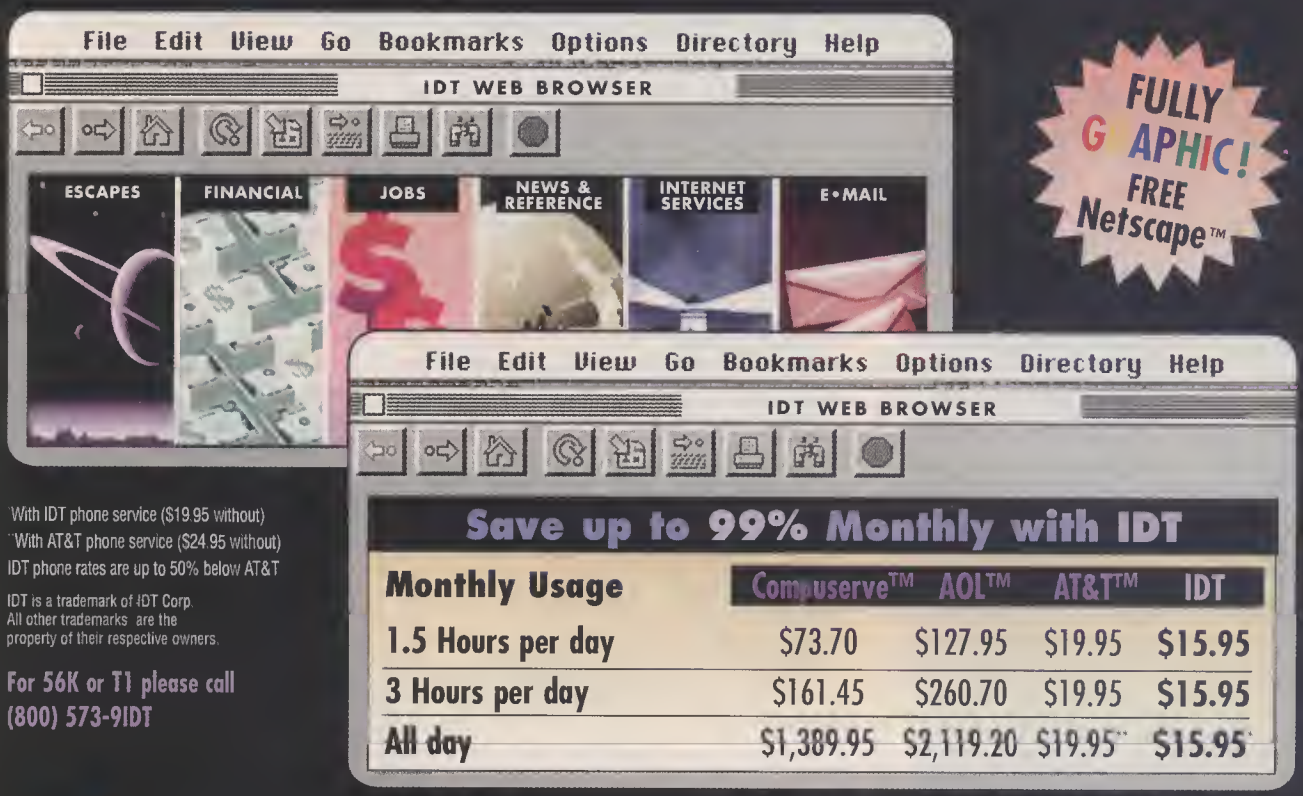
Macintosh™ and Windows™ 3.x/95 compatibility

No per minute charges

Unlimited tech support 24 hours a day

Internet access available in most U.S. cities

UNLIMITED! UNCENSORED!



FULLY GRAPHIC! FREE Netscape™

*With IDT phone service ($19.95 without)
**With AT&T phone service ($24.95 without)
IDT phone rates are up to 50% below AT&T

IDT is a trademark of IDT Corp.
All other trademarks are the property of their respective owners.

For 56K or T1 please call (800) 573-9IDT

Save up to 99% Monthly with IDT

Monthly Usage	Compuserve™	AOL™	AT&T™	IDT
1.5 Hours per day	$73.70	$127.95	$19.95	$15.95
3 Hours per day	$161.45	$260.70	$19.95	$15.95
All day	$1,389.95	$2,119.20	$19.95**	$15.95*

IDT Internet

TO SIGN UP/GET INFORMATION CALL ANYTIME:

1-800-245-8000

HPC796

CIRCLE READER SERVICE NUMBER 28

mecc

NEW!

Explore Yellowstone™
The only Natural Science CD-ROM that brings majestic Yellowstone National Park into your home.

Geysers and grizzlies and bison, oh my!

It's the next best thing to being there. New *Explore Yellowstone* CD-ROM from MECC is that realistic. Its engaging, multimedia format gives kids, ages 8 and up, four interactive ways to discover America's oldest national park.

The **Guidebook** is a unique multimedia resource that features hundreds of park-related topics. QuickTime™ movies, animations and sound recordings bring the park to life.

During the **Park Tour**, kids use a realistic map and field glasses to study geography, animals, plant life and regions that few visitors ever see.

Eight **Visitor Centers**, one for each region of the park, let kids work their way up to Head Ranger by correctly answering questions about Yellowstone.

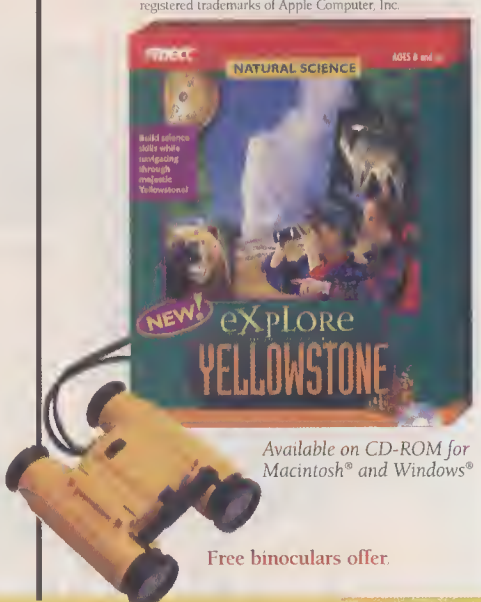
At the eight **Field Stations**, kids can conduct dozens of different experiments such as *Building a Volcano* and *Making a Geyser Erupt*.

To find out what stores carry *Explore Yellowstone*, call **1-800-685-6322**, ext. 529. For a demo, check our home page on the World Wide Web: http://www.mecc.com/

Explore Yellowstone comes from the same people who brought you award-winning *The Oregon Trail*®.

And, of course, it's backed by the MECC Money Back Learning Guarantee: Satisfaction or your money back.

Copyright © 1996 MECC
The Oregon Trail and the MECC name are registered trademarks and Explore Yellowstone is a trademark of MECC. Microsoft and Windows are registered trademarks of Microsoft Corporation. Macintosh and QuickTime are registered trademarks of Apple Computer, Inc.



Available on CD-ROM for Macintosh® and Windows®

Free binoculars offer.

To order now, call 1-800-215-0368, ext. 788. Mention promo code EYBH.
Ask about our limited-time free binoculars offer.

CIRCLE READER SERVICE NUMBER 37

kid raves

OUR YOUNG EXPERTS RATE SOFTWARE

BY CAROL ELLISON

Lolly, Lolly, get your kids' adverbs here

Conjunction Junction, what's your function?" Thanks to the Emmy-Award-winning *Schoolhouse Rock* TV spots, anyone who grew up in the '70s knows immediately it's "hooking up words and phrases and clauses." By wedding catchy tunes to cute cartoons, *Schoolhouse Rock* made math, English, history and social-studies basics seem almost as cool as the latest breakfast cereal. Due to these toe-tappers, much of a generation will never forget how a bill becomes law and why 3 is a magic number.

Riding the wave of '70s nostalgia, the series has been rerun in recent years and is now undergoing a major revival, including its first appearance on CD-ROM. The disc even took some of the older children in the *HomePC* Kids' Lab back to...well, their youth. "I feel like I've been transported back five years," declared 14-year-old Diana when she overheard the familiar songs.

★★★★

Schoolhouse Rock! Grammar Rock

Ages 6 to 10

Language skills

The Grammar Rock CD-ROM is the first of a planned series based on the TV segments. The disc couples nine vintage animated music videos about the parts of speech with 19 activities that reinforce still-potent lyrical lessons.

Grammar Rock adds 19 new activities to its computer menu of nine vintage tunes and toons.

Diana is several years older than the program's target audience and knows the tunes, but *Schoolhouse Rock* has been off the air for a while, so few of the kids in the disc's targeted age range have heard the jingles. We can't say we're surprised, but they loved them just the same.

Abbe, 7, quickly began singing along with "Conjunction Junction," then tackled a word game, sorting nouns by person, place and thing. "I like this game!" she chirped. Then she moved on to the pronoun race, where her character sped ahead of the pack with every pronoun Abbe identified in a sentence.

"Knowledge is power," the game said when she won.

"Yes!" she agreed. Some 20 years after its debut, *Schoolhouse Rock* remains as solid as ever.

$39.95 (Windows 3.1 CD-ROM, Macintosh CD-ROM) from Creative Wonders, (800) 543-9778, (415) 573-7111, http://www.ea.com/crwonders.html. Circle #422

Shari had a little Lambchop

Shari Lewis and her puppet sidekick Lambchop have charmed young TV viewers with their wit and wisdom for well over 30 years, managing to be at home in the eras of both Howdy Doody and the Power Rangers. But—*Schoolhouse Rock* aside—what glitters on TV doesn't always strike gold on the PC; our juvenile jury expected more from Lambchop's CD-ROM debut.

★★

Lambchop Loves Music

Ages 3 to 7

Music

"Not much to do," complained Laura, 6.

The disc combines an interactive tale based on the children's story "The Musicians of Bremen" with five musical activities. Lambchop joins a trio of tuneful animals to form a quartet; kids can listen to the story and play the games, or visit the music "store," where they can hear more than 50 instruments.

kid raves

As much as children in the Lab love Lambchop, the little critter's lengthy banter with Shari preceding the story was too much of a good thing. Worse, children such as Abbe, 7, who loves to test her developing

reading skills, were disappointed that there was no text on the screen.

"It's OK. Kind of boring," Abbe concluded.

"But this is cute," exclaimed her friend Alexandra, 6, finding the Lambchop finger puppet packaged with the program.

"Yeah!" Abbe agreed enthusiastically. Then she got up from the PC to go play with it.

$39.99 (Windows 95 CD-ROM, Windows 3.1 CD-ROM, Macintosh CD-ROM) from Philips Media, (800) 340-7888, (310) 444-6500, http://www.philipsmedia.com/media/home. *Circle #423*

Tyrannosaurus wrecks

As a book series, *Dinotopia* hit the *New York Times* best-seller list last year. But as a CD-ROM game, it sank to the bottom of our young experts' charts.

Jim Gurney's fantasy-adventure stories about a society of humans and dinosaurs clearly excite children's imaginations. Several kids in the Lab who had read the books were eager to try the disc, which casts players onto a beach, shipwrecked in the strange and mysterious land of Dinotopia, where human and dino inhabitants seemingly co-exist and communicate in an unusual grunting language.

★

Dinotopia

No age rating (best for 10 and up)

Game

That much kids are told at the beginning of the game. But the details of the predicament—the year is 1878 and children play as 17-year-old Nathan Drake, whose anthropologist parents died in the Australian outback—are revealed only in a strategy guide that costs an extra $19.95. And before players can tackle the 12 challenges to win the game—or even figure out what it's all about—they must learn the language of Dinotopia, which is nearly impossible without the guide.

"I'm clueless! Absolutely clueless!" declared a frustrated Jessica, 13, after wandering around Dinotopia for more than an hour without finding anyone to teach her the language. "I don't even know what I'm supposed to be doing here."

Even 11-year-old Jonathan, a great fan of the books, gave up: "I guess it would be OK on a rainy day when you couldn't go outside, and there weren't any other games in the house, and the TV didn't work, and your mom was out of town or at the grocery, and there was nobody to talk to..."

$50 (DOS CD-ROM) from Turner Interactive, (800) 294-0022, (404) 885-7972, http://www.turner.com/dinotopia. *Circle #424*

Of course, Peter Rabbit can multiply

Peter Rabbit's Math Garden is the second in a CD-ROM series based on the classic tales of Beatrix Potter. The first, The Adventures of Peter Rabbit and Benjamin Bunny, let kids explore the story and Potter's watercolor landscapes from a 360-degree perspective. Math Garden is just as lovely, and it's chock-full of effective learning games.

The new disc introduces basic math skills with the help of familiar characters: Mrs. Tittlemouse asks children to sweep away a certain number of bugs from her house; Mr. Jeremy Fisher enlists players' help to sort the fish he catches to serve at a party; and Peter himself needs assistance in matching numbers of objects to numerals and equations before finding a place to hide from Mr. McGregor.

★★★1/2

Peter Rabbit's Math Garden

Ages 4 to 8

Math

Four skill-building activities increase in difficulty as players answer questions correctly. Math Garden also comes with a coloring and activ-

Thanks, kids!

This month's reviews rely on the talents, hard work and youthful perceptiveness of the young experts in the *HomePC* Kids' Lab: Joseph and Victoria Baston, Jonathan Buyanovsky, Cara and Laura Forte, Diana and Russell Garber, Jennifer Garber, Abbe and Lisa Goldberg, Kristen Hansdorf, Alexandra and Marissa Hayat, Samantha Holle, Alex Hyman, Adam and Sarah Kirell, Jessica Sampson, and Edward and Nicholas Shapiro. Thanks also to Debbie Doyle, director of CMP Publications' Child Care Center, and Kids' Lab assistant Karen Garber. —*C.E.*

'It's a three-story motorhome with a revolving restaurant on top'

gryphon **Bricks**™

Available now for Macintosh. Coming in August for Windows.

GRYPHON

1-800-795-0981 ph: 619-536-8815 fx: 619-536-8932 www: http://www.gryphonsw.com

©1996 Gryphon Software Corporation. Gryphon Bricks, the Gryphon Bricks logo and the Gryphon logo are trademarks of Gryphon Software Corporation. All other trademarks are the property of their respective owners. All rights reserved.

CIRCLE READER SERVICE NUMBER 26

ity book that kids can play with away from the keyboard. And after each round, it's Radish Time, a lively activity in which animated radishes fall from the top of the screen. Children click on as many radishes as they can until time's up; each one they collect can be traded for seeds to grow in Mr. McGregor's garden for Peter's next meal.

"How many is 9 minus 6?" wondered Joseph, 6, when asked how many bugs Mrs. Tittlemouse had swept up. But he'd solved the problem in his head before his 8-year-old sister, Victoria, answered.

"Yes! It's radish time," Joseph cheered when he'd correctly sorted fish for Mr. Jeremy Fisher's dinner party. With a basket of radishes, he was off for Mr. McGregor's garden. Just one tricky problem remained.

"Gardening?" he asked. "How do you garden?"

$33.95 (Windows 3.1 CD-ROM, Macintosh CD-ROM) from Mindscape, (800) 234-3088, (415) 897-9900, http://www.mindscape.com/. *Circle #425*

Antics that leave kids spell bound

★★★★

The Great Word Adventure 1

Ages 6 to 9

Spelling

The Great Word Adventure 1 isn't a perfect learning tool; at times, a child's score in this spelling game reflects his or her ability to aim, more than how well he or she knows words. Nevertheless, the disc more than earns its four stars: We haven't seen a program inspire such excitement in months—it literally had kids jumping and dancing in the aisles.

Right on cue, Lisa and Marissa, both 9, did a duck dance and bumped butts to the music the program launches when players finish a rhyming activity. Whether or not they were aware that a 2,000-word vocabulary is at the heart of the program—which teaches kids how to spell by way of games, anagrams and alphabetization challenges—really didn't matter, since the jingles, silly gags and corny one-liners from Lil' Howie, the animated bear (voiced by comedian Howie Mandel) who hosts the game, made it all such rollicking fun.

Favorites of the kids in the Lab included the Stink Gun, which shoots down all the words in a given category (for instance, all words that are colors—"green," "red," "gold" and so on), and Scary Stories, which rewards players with a spooky tale for completing an anagram.

And for all the entertainment, the disc offers a fun-filled way to study for school, since it lets kids add their weekly spelling lists to the collection of words in the program.

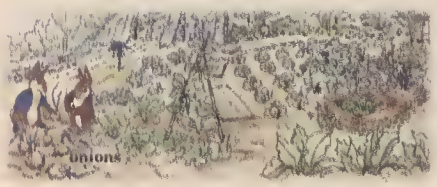
"I just love this game," said Jennifer, 9. "It's so cute. The graphics are cute. The characters are cute. It's *all* cute."

$35 (Windows 3.1 CD-ROM, Macintosh CD-ROM) from 7th Level, (800) 884-8863 (214) 498-8100, http://www.7thlevel.com. *Circle #426* ●

Rabbit's feat: Preserving a classic

Peter Rabbit has been a favorite children's book since 1902, when he took his first bite out of Mr. McGregor's garden in *The Tales of Peter Rabbit*. But when Mindscape decided to do a multimedia version of Peter's story, adapting a nearly century-old literary treasure to CD-ROM while retaining its essence posed a challenge.

Mindscape wanted to present Peter's world in a panoramic 360-degree view—what it calls "Explorascape"—that would let children feel a part of that world. But Potter's famous watercolor illustrations were close-ups of its inhabitants and partial views of the landscape.



To get a look at the environment that inspired the drawings, the software development team flew to England and walked the grounds of Potter's estate. "We needed to preserve the integrity of 100 years of Peter Rabbit," says Rosemary Yates, Mindscape's senior producer for the series. "If you work from the book and look up from the back gate through the barnyard, you see the view we were trying to re-create."

Four watercolor artists were enlisted to produce the electronic Explorascape. The result of their efforts is the panoramic view of Peter's world in two discs released so far—interactive environments that surely would make Potter proud. —*C.E.*

Over 300 games for people with brains.
Put on your thinking cap and get ready to have a blast with *Smart Games Challenge 1*™—the fun new PC game that's sure to get your mind racing! Play an outrageous variety of games: wordplay wonders, strategy sticklers and perception puzzlers. Something for absolutely everyone!

Choose from hundreds of different puzzles. From no-brainers for novices to brain-busters for seasoned gamers. Each mind-boggler gives you up to 20 challenging levels. And with Optimization Scoring, the smarter your solution, the more points you'll score. Feeling competitive? Go "brain-to-brain" against family and friends or take on the world at our Internet Leader Board.

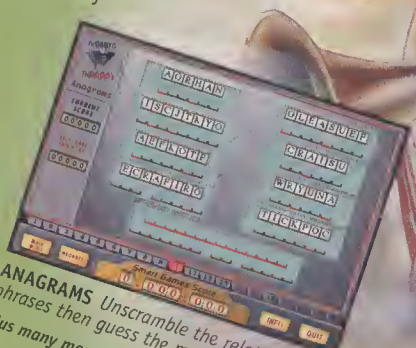
Smart Games Challenge 1 will delight your senses with eye-catching graphics and zany sound effects. It's easy to play, but hard to master. Smart Games will pump up your brain and sharpen your powers of perception. Pick up *Smart Games Challenge 1* at a retailer near you.

Play With Your Brain!

MARBLE JUMP *Guaranteed to make you lose your marbles. "Jump" them and they disappear.*

CAR JAM *Move the red car out of the lot, ASAP. It's a real fender-bender mind-bender!*

SLIDING TILES *Get the picture? You will, if you get all the right pieces in all the right places.*



ANAGRAMS *Unscramble the related words or phrases then guess the message. DOGO CULK!*

Plus many more puzzle categories (not shown)

WIN UP TO $50,000 IN OUR ONGOING SMARTEST PERSON IN AMERICA CONTEST

Distributed by:
RandomSoft
A Division of Random House, Inc

Download a FREE DEMO:
http://www.smartgames.com

SMART GAMES®

CIRCLE READER SERVICE NUMBER 49

Smart Games is a registered trademark and Smart Games Challenge 1 is a trademark of Smart Games, Inc. ©1996 RandomSoft, Inc. All rights reserved.

BOOM!

The Next Incredible Image Pak Just Landed.

Absolutely Incredible...

For more than 12 years ClickArt has been providing more original, high–quality, useful and stylish images to our customers than anyone else. Now we've put together the largest collection of high–quality art available, the Incredible Image Pak 65,000. Don't be fooled by imitators that publish the same art as everyone else. This collection is 100% ClickArt. We won't settle for imitations and neither should you.

- 60,000 images
- 5,000 photos
- 2,000 fonts
- 1,000+ page full–color fully indexed Visual Catalog

COMPUTER CITY · COMPUSA · Fry's ELECTRONICS · Office DEPOT · BEST BUY

CLICKART TM004

For more information contact us at: 1-800-9-tmaker...or e-mail us at: info@clickart.com...or catch us on the web: http://www.clickart.com

CIRCLE READER SERVICE NUMBER 57

YOUR GUIDE TO NEW HARDWARE

gear + gadgets

EDITED BY JULIE COHEN

Voice commands (and sound multimedia)

NEC's Ready 9617 multimedia PC puts the *fun* in functional—and chances are you'll be too busy playing with the gizmos on this multimedia PC to notice the low-priced 133-MHz Pentium machine's sharp, productivity-enhancing performance.

Imagine using a handheld remote control to activate your audio CDs, retrieve voice messages from a full-featured answering machine, or switch to a quick-dialing speakerphone. Not radical enough for you? Then put down the remote and *tell* the PC what you want it to do—the system's voice-recognition software understands a long list of Windows 95 commands.

Say what you will about the need for speech commands; if they don't excite you, rest assured NEC hasn't ignored the basics of a sound multimedia PC. The Ready 9617 has 16 megabytes of RAM, a six-speed CD-ROM drive, an Opti 930 wavetable sound card, an Alliance ProMotion video/MPEG card, a microphone and a pair of high-quality 8-watt speakers. And the model's no slouch for home-business owners, either, with its 28.8-Kbps voice and data fax/modem, crisp 15-inch monitor and 1.6-gigabyte hard drive. Finally, its software strikes a balance between work and play, with Microsoft Works, Money, Publisher, Encarta 96 and Explorapedia; the Studio M multimedia workshop; and a number of entertainment and children's programs.

★★★★

NEC Ready 9617

Multimedia PC

It may sound gimmicky, but using a remote control to listen to incoming phone messages, view faxes, dial phone numbers, put a caller on hold, or adjust the volume of your audio CD with the press of a button is a kick. Even more captivating is the voice control, which takes only a few minutes to set up. The system's preset profiles recognized most of our spoken instructions; unless you have an unusual speaking voice, you'll probably have to train the PC only to understand customized commands.

Whether for business or pleasure, the 9617 lives up to its name—this machine really is ready for anything. *—David D. Busch*

$2,448 with 16 MB of RAM, 1.6-GB hard drive, six-speed CD-ROM drive and 15-inch monitor, from NEC, (800) 388-8888, (508) 264-8000, http://www.nec.com. *Circle #427*

NEC's Ready 9617 not only delivers multimedia sights and sounds, but listens to spoken commands.

This hard drive takes passengers

At first glance, the $599 price tag on Adaptec's new Power Storage hard drive kit—a 1-gigabyte external Quantum Fireball 1080S drive and an Adaptec AHA-2940 SCSI adapter—may seem steep compared with competing $250 1-GB EIDE drives that require no add-on adapter. Look a little closer, however, and the kit will demonstrate the value of the SCSI (Small Computer Systems Interface) technology.

Adaptec's package (which works with existing EIDE drives) lets you hook up as many as six additional devices—hard drives, CD-ROM drives, optical disk readers and recorders, scanners, and removable storage devices such as the Iomega Zip or SyQuest EZ—simply by connecting one device to the next, then connecting the last one in the chain to the adapter.

★★★

Adaptec Power Storage

Hard drive

And because SCSI components can send and receive information simultaneously, your PC's performance speeds up (devices sharing

an EIDE interface have to take turns). So although the Fireball's basic specs were on a par with our Pentium-75's built-in EIDE drive (an 11-millisecond seek time for the Fireball, 10 ms for the EIDE), SCSI made its presence felt in our tests: It took 25 seconds to copy a 15-megabyte file from a CD-ROM to the EIDE hard drive; we copied the same file to the Fireball in just 18 seconds.

The drive is easy to install, too: Open the case, slide the adapter card into a free PCI slot, close the box and plug the external drive into the adapter with the supplied SCSI-2 cable. You'll also need to connect a separate power supply.

If you're using Windows 95, the system will locate the new SCSI adapter and offer to install the required drivers from the Adaptec floppy disk. To prepare the drive, you'll have to open a DOS window and run *fdisk* to create a new drive letter (D:); you'll also have to use the DOS *format* command. The process is clearly explained in a well-written 12-page pamphlet.

Be aware that when you assign the letter D: to the Adaptec drive, your CD-ROM drive will be renamed drive E: automatically. You'll have to make sure your CD-ROM programs look for the E: drive instead of the D: drive.

If you plan to add a scanner or CD-ROM writer and want to save scarce internal slots or avoid slower parallel-port connections, the Power Storage hard drive kit won't steer you wrong. *—D.B.*

$599 (PC) from Adaptec, (800) 959-7274, (408) 945-8600, http://www.adaptec.com. *Circle #428*

All-in-one is good, if not picture-perfect

★★★

HP OfficeJet 350

All-in-one device

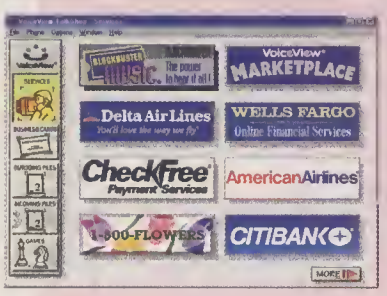
First, the good news: Hewlett-Packard's OfficeJet Model 350 all-in-one device handles its basic printing, faxing, copying and scanning jobs just fine. The bad news is that the convenience requires some compromises.

Installation isn't one of them—as long as you remember to buy a high-speed, bidirectional printer cable, hookup is unlikely to give you any problems. The OfficeJet 350 connects to your PC's parallel port, and Windows 95 will recognize the new printer automatically, prompting you to load the software.

You won't have a bad word to say about the way the machine handles text: At 600 by 300 dpi and three pages per minute, it measures up to the performance of a typical budget ink jet printer. The OfficeJet 350 ships with Caere's OmniPage Limited Edition software for basic optical character recognition, and includes an offer to upgrade to the $695 OmniPage Pro for $129.

Config.sys diagnosis: Fixing system files from afar

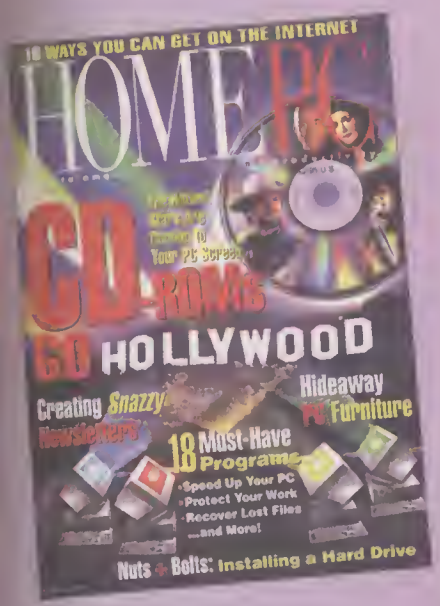
Open your *config.sys* file," says the tech-support rep. "Huh?" you ask. Those moments when you're at a loss add minutes—and toll charges—to your phone call as the technician spells out, letter by letter, what to type in order to find the basic files necessary to help diagnose your problem.



But some new PCs eliminate the middleman—namely, you—in this exchange. Models from NEC (including the Ready 9617 reviewed in this section), AST, Packard Bell and Hewlett-Packard use a program called VoiceView TalkShop, which, among its service links, lets a PC maker's technician retrieve important system files directly from your computer. When you ring up the company's support department via the PC's modem (which can handle both voice and data—not simultaneously, but in one connection), the support technician can send fixes or make whatever changes are necessary to your files, saving you lots of time. In fact, AST reports that the average length of a call for TalkShop service is 10 to 15 minutes, or a third the average 30 to 45 minutes for a standard call. *—J.C.*

HOMEPC

The computing magazine for the rest of us—home PC users who want to learn more and get greater use from their computers.



Subscribe today and take advantage of our special offer. You'll see what a difference **HOMEPC** will make in your life.

FREE GIFT with your paid subscription.

Great Savings!

❍ **Yes!** I want to get more out of the entire home computing experience. Start my subscription to **HOMEPC** today. I'll get 12 issues for just $12.97. That's a savings of 41% off the basic annual rate. Plus, I'll receive a free gift with my paid subscription, the "**HOMEPC** FunPak" disk full of fun and useful software programs.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Send no money now. We'll gladly bill you later.

Please note: HomePC FunPak disk contains shareware that requires a small fee for continued use. Basic annual subscription rate is $21.97. Canadian subscription rate is $28.97 (Canadian GST is included). Foreign subscription rate is $30.97, U.S. funds, prepaid only. Please allow 6-8 weeks for delivery of first issue. 6607NH

Subscribe Today!

❍ **Yes!** I want to get more out of the entire home computing experience. Start my subscription to **HOMEPC** today. I'll get 12 issues for just $12.97. That's a savings of 41% off the basic annual rate. Plus, I'll receive a free gift with my paid subscription, the "**HOMEPC** FunPak" disk full of fun and useful software programs.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Send no money now. We'll gladly bill you later.

Please note: HomePC FunPak disk contains shareware that requires a small fee for continued use. Basic annual subscription rate is $21.97. Canadian subscription rate is $28.97 (Canadian GST is included). Foreign subscription rate is $30.97, U.S. funds, prepaid only. Please allow 6-8 weeks for delivery of first issue. 6607NM

Give a Super Gift!

❍ **Yes!** I'd like to give a one-year subscription of **HOMEPC** to the special person named below. My cost is just $12.97 – that's a savings of 41% off the basic annual rate. Plus, they will receive a free gift, the "**HOMEPC** FunPak" disk after payment has been received.

Bill Me:

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Please begin a gift subscription for:

GIFT NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Send no money now. We'll gladly bill you later.

Please note: HomePC FunPak disk contains shareware that requires a small fee for continued use. Basic annual subscription rate is $21.97. Canadian subscription rate is $28.97 (Canadian GST is included). Foreign subscription rate is $30.97, U.S. funds, prepaid only. Please allow 6-8 weeks for delivery of first issue. F607NG

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 27 FLAGLER BEACH, FL

POSTAGE WILL BE PAID BY ADDRESSEE:

HOMEPC

P O BOX 420212
PALM COAST FL 32142-9468

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 27 FLAGLER BEACH, FL

POSTAGE WILL BE PAID BY ADDRESSEE:

HOMEPC

P O BOX 420212
PALM COAST FL 32142-9468

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 27 FLAGLER BEACH, FL

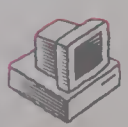
POSTAGE WILL BE PAID BY ADDRESSEE:

HOMEPC

P O BOX 420212
PALM COAST FL 32142-9468

Explore the endless possibilities of home computing... with your subscription to HOMEPC!

Reply Now!



The demand for computer programmers will double by the year 2005...

Train now for a high-paying career as a computer programmer!

Only NRI at-home training gives you in-demand programming skills in three of today's hottest computer languages: BASIC, C, and Visual Basic.

Plus, you now train with and keep state-of-the-art programming tools: a Pentium 100 multimedia computer system, Visual Basic, Windows 95, and more!

Prepare for today's newest programming opportunities

The Bureau of Labor Statistics forecasts that job opportunities for computer programmers will increase much faster than the average over the next 10 years, with as many as 40,000 new jobs opening up by 2005.

Now, with NRI, you can get the new skills you need to build a top-paying career — even a full- or part-time business of your own — in this high-growth field.

No experience needed — NRI's Discovery Learning Method builds your programming skills step by step

With NRI's unique Discovery Learning Method, you get hands-on programming experience as you master today's most popular languages and programming environments. Step by step, you learn to create the kinds of full-featured, powerful programs today's employers and clients demand:

- You **start with BASIC,** building your confidence enough to create and modify several programs of your own.
- You move on to **master C,** a sophisticated language that's become the programming tool of choice for a variety of applications.
- You're then ready to **explore Visual Basic,** a high-level, object-oriented language designed specifically for creating programs in a Windows 95 environment.

Best of all, you master these important languages as you train with and keep the most powerful computer system available from any school!

Send for your FREE catalog today!

See how NRI can give you the programming skills, the full-featured computer system, and the state-of-the-art software you need to get started in this top-paying field. Call or send for your free catalog today!

If the coupon is missing, write to us at NRI Schools, 4401 Connecticut Avenue, NW, Washington, DC 20008.

CALL 1-800-321-4634, Ext. 1845

More equipment, more advanced software, and more real-world programming experience than any other school!

- Pentium 100 computer
- 8 meg RAM and 256K cache memory
- 1 gigabyte hard drive
- Super VGA color monitor with 1 meg video memory
- Quad-speed CD-ROM drive and 16-bit sound card
- 28,800 baud fax/modem, plus 10 free hours of *America Online*
- Netscape Navigator™ Web browser
- BASIC interpreter
- Power C and Visual Basic compilers
- Windows 95

SEND TODAY FOR FREE NRI CATALOG

NRI Schools
4401 Connecticut Avenue, NW, Washington, DC 20008

✓ **Check one FREE catalog only**

- ☐ **COMPUTER PROGRAMMING**
- ☐ PC Applications Specialist
- ☐ Visual Programming in C++
- ☐ Networking with Windows NT
- ☐ Microcomputer Servicing
- ☐ Desktop Publishing with PageMaker
- ☐ Bookkeeping & Accounting
- ☐ Multimedia Programming

OR GET YOUR DEGREE!

- ☐ **NEW!** Associate Degree in Accounting
- ☐ **NEW!** Associate Degree in Business Management

Name_____ Age____
(please print)
Address_____
City_____
State/Zip_____

A Division of The McGraw-Hill Companies
Accredited Member, Distance Education and Training Council 5542-0796

Advice squad

SCSI cards have two connectors—one for internal devices (such as most hard drives) and one for external devices (for example, most scanners). If you're going to connect several SCSI devices in a row so you can use them all at once (a procedure called daisy-chaining), you'll need to make sure they're properly "terminated"—that is, a small plastic end-cap must

be placed on each end of the chain, essentially to signal that it's the end of the line.

If you're hooking your devices to one type of connector (either internal or external), the last device in the chain must be terminated; the SCSI card itself already has a terminator. However, if you're attaching devices to both internal and external connectors, place terminators on the end devices and remove the terminator from the card itself.

Just remember this rule: The terminators always go on the ends of the chain, never in the middle. —*J.C.*

When it comes to graphics, however, the OfficeJet's picture gets cloudier. For example, the device is limited to 32 shades of gray, compared with competitive machines from Brother and Lexmark, which offer 64 shades. In our tests, pictures lost details, whether they were scanned, copied or faxed.

Faxing has another limitation: Although the OfficeJet has acceptable image quality (a maximum resolution of 300 by 300 dpi), transmission is limited to a relatively slow 9,600 bps.

Still, if money is an object, the OfficeJet 350 delivers a copier, scanner, fax machine and printer that should meet most home users' needs and budgets. —*J.C.*

$599 (PC) from Hewlett-Packard, (800) 752-0900, (415) 857-1501, http://www.hp.com. *Circle #429*

Time to catch up with 8X CD-ROM drives

Buckle up: The era of eight-speed CD-ROM drives is finally here. The Plextor 8Plex series unleashes its multimedia magic at literally twice the rate of the average quad-speed drive.

We took Plextor's 8Plex internal model for a spin. The 5.25-inch drive has a Fast SCSI interface and ships with its own SCSI data cable and an Adaptec AHA-2940 SCSI controller (the same one that's found in Adaptec's Power Storage hard drive kit, reviewed above, with similar speed advantages).

The 8Plex rises to the challenge of today's software—especially when running games directly from the CD-ROM drive. For instance, when we ran Descent II and Rebel Assault II with full-motion video and music segments in a quad-speed drive, the games tended to drop frames during video segments. But with the 8Plex, which transfers data at about 1.2 megabits per second (as opposed to 600 bits with most quad-speed drives), we couldn't tell the difference between video run off the disc and clips run off the hard drive.

★★★

Plextor 8Plex

8X internal CD-ROM drive

The 8Plex has smarts, too: The drive uses only about 10 percent of your computer's CPU brainpower, which helps speed overall performance.

The now-common six-speed CD-ROM drives are fine for most of today's software, but they're already huffing and puffing when running some of the more advanced multimedia software on store shelves. If you're a game fan upgrading your CD-ROM drive, it may pay to look ahead of the curve. —*Oliver Rist*

$419 (PC) from Plextor, (800) 886-3935, (408) 980-1838. Circle #430 ●

As your pulse races, your throat tightens

Look for Sierra's Sports Spectacular in July!

and your breath comes in ragged little bursts,

keep reminding yourself: "It's only a game."

Now on Win 95 & Mac!

PAPYRUS™

INDYCAR® II

Instant Replay feature lets you view racing highlights from 8 cool angles.

Get ready for the ride of your life with IndyCar® Racing II. It's the cutting-edge racing simulator that's as close to real racing as a body can take. IndyCar Racing II blows the doors off any other game in its class. With totally authentic handling. Eye-popping graphics. "You are there" stereo sound effects. And ruthlessly realistic spinouts. With IndyCar Racing II, an officially licensed product of IndyCar, you can race against the professionals—or challenge a friend via modem. Plus, you can test your nerve on 15 heart-stopping international race tracks. Is this cool, or what?

Crisp, clean SVGA graphics let you see the competition ahead and behind you.

Gear up for the ultimate thrill. Race to your nearest software dealer this June, hit us at http://www.sierra.com, or call 1-800-757-7707.

★★★★★
Computer Gaming World
February 1996

Winner, 1996 Best Simulation

Winner, 1996 Best Sports Software

©1996 Sierra On-Line, Inc. ® and/or ™ designate trademarks of, or licensed to Sierra On-Line, Inc. All rights reserved. Papyrus is a trademark of Papyrus Design Group, Inc. IndyCar and helmet logo are registered trademarks of the Indianapolis Motor Speedway Corporation, under exclusive license to Championship Auto Racing Teams, Incorporated. Runs on Windows 95, Macintosh and DOS. Sports Spectacular promotion at participating retailers only.

SIERRA®

KIDS TO ADULTS
K-A
AGES 6+

CIRCLE READER SERVICE NUMBER 50

Play us a song. *You're* the piano man.

Okay, so right now you're only playing games. But with Midisoft Play Piano on your computer, and any MIDI piano keyboard, you can be entertaining friends with your favorite songs *in 30 days*. Guaranteed.

Midisoft Play Piano teaches you piano using the power of your PC to analyze your performance and tailor lessons to your pace. No boring drills or exercises. Midisoft Play Piano will create a lesson plan just for you from the forty songs we've included, any CD-ROM library, the Internet, or any online service.

It's easy. Animated Magic Hands™ and multimedia video will have you playing instantly. And, with more than 400 music activities, Midisoft Play Piano offers a strong foundation for continued learning and a whole lifetime of enjoyment.

We're not playing around. Midisoft Play Piano offers you much more than just a great new way to have fun at your computer. It gives you a great new way to please a crowd.

If you can dial 1-800-PRO-MIDI, you can play piano.

Call now and you can see for yourself! We'll send you a FREE VIDEO that shows you how easy it is. You pay only shipping and handling.

Check us out at www.midisoft.com or visit Babbages, Best Buy, CompUSA, Computer City, Egghead Software, Media Play, Micro Center, Software Etc. or Tower Records!

Midisoft™

Sounds Like The Future

100% Money-Back Guarantee†

© 1996 Midisoft Corporation. All rights reserved. Midisoft, The Midisoft logo and Play Piano are trademarks of Midisoft Corporation. Other products and brand names are property of their respective owners. †Call 1-800-PRO-MIDI for guarantee details and more information. *Plus shipping and handling.

buy at

HOMEPC direct

HomePC Direct offers you a sampling of companies that specialize in selling products directly to you.

If you prefer buying PC hardware & software through the mail or are considering trying this avenue for the first time, you'll find *HomePC Direct* of value.

Expert Consultation Satisfaction Guarantee

The Edutainment Catalog presents

Word Adventure Vocabulary

Blast your way to a better vocabulary! Dano needs your help on his **Word Adventure** through the space and time tunnel. Build word power with 2,000 defined words and over 5,000 pronounced out loud. Learning is fun and entertaining with real arcade action and 3-D space adventure animation!

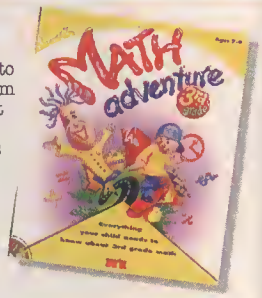
439037 (Win95/Windows,CD) - $29.95

8+ AGE | WINDOWS | 95 WINDOWS | CD-ROM

Math Adventure Math

Dano and the wacky Professor need YOUR help! They're stuck in math adventureland with no one to solve their math challenges. Learn everything from simple addition to fractions by playing 48 different games, from basketball to eating pizza, with thousands of "real life" math lessons and over 5 hours of audio explanations. Save Dano and the Professor and be at the top of your class!

439038 (Win95/Windows,CD) - $29.95



7-9 AGE | WINDOWS | 95 WINDOWS | CD-ROM

"THE PERFECT HOME SOFTWARE LIBRARY"

HOME PC's TOP 100 EDITORS' CHOICE

"100 titles from the past 12 months that no home computer fan should pass up....In the end, the programs on [the] Top 100 list (which isn't a ranking) outshone the others, because that have most—if not all—of the attributes that make a software program great: solid content, superb sound and graphics, and operation that doesn't make you pull your hair out." (a partial listing)

Title/Publisher	Ages	DOS/Win/ Win95 CD	Mac CD
30 Atlas/Creative Wonders	8+	$42.95	$42.95
75 Seasons:History of the NFL/Virgin Interactive	8+	$29.95	$29.95
Adobe Art Explorer Oeluxe/Adobe Systems	8+	n/a	$39.95
After Oark for Windows 95/8erkeley Systems	10+	$34.95	n/a
Ansel Adams Screensaver/WEA	12+	$24.95	$24.95
Automap Road Atlas/Microsoft	16+	$36.95	$36.95
8etter Photo:Learning to See Creatively/Diamar	10+	$54.95	$54.95
8ookshelf 1996-97/Microsoft	8+	$49.95	$49.95
Corel Gallery 2/Corel	12+	$69.95	$69.95
Critical Mass: Race to 8uild the A-8omb/Corbis	10+	$49.95	$49.95
Cybercrafts:Fun With Electronics/Philips Media	8+	$35.95	$35.95
Dabbler 2.0/Fractal Oesign Corp.	4+	$44.95	$44.95
Oiscovering Shakespeare/IVI	12+	$24.95	n/a
Distant Suns First Light/Virtual Reality Labs	10+	$59.95	n/a
Echo Lake/Delrina	10+	$59.95	n/a
Emergency Room / I8M	12+	$44.95	n/a
Encarta 96/Microsoft	8+	$49.95	$49.95
Endorfun/Tme Warner Interactive	12+	$24.95	$24.95
Flight Unlimited/Looking Glass Technologies	10+	$32.95	$39.95
Gamebreak! Timon & Pumbaa/Disney	5+	$34.95	n/a
Golf Tips: 8reaking 100/Diamar	12+	$42.95	$42.95
Golf Tips: 8reaking 90/Diamar	12+	$42.95	$42.95
Home Improvement 1-2-3/Multicom	10+	$36.95	$36.95
Hyper-3-D Pinball/Virgin Interactive	8+	$39.95	n/a
Julia Child: Home Cooking with Master Chefs/Microsoft	10+	$32.95	n/a
LandOesigner 3D/Sierra Online	10+	$47.95	n/a
Logical Journey of the Zoombinis/8roderbund	8-12	$39.95	$39.95
Magic Carpet 2/Electronic Arts	12+	$52.95	n/a
Magic: An Insider's View/HarperCollins Interactive	10+	$34.95	n/a
Marty and the Trouble with Cheese/Maxis	2-5	$28.95	$28.95
Math 8laster Mystery/Davidson & Assoc.	10+	$36.95	n/a
Mayo Clinic Family Health 8ook 1996/IVI	12+	$47.95	$47.95
Mayo Clinic Sports Health & Fitness/IVI	11+	$19.95	n/a
Microsoft Music Central 96/Microsoft	14+	$39.95	$39.95
Microsoft Wine Guide/Microsoft	18+	$29.95	$29.95
Music Screeners (Various Artists)/Sony Music	12+	$12.95*	n/a
My Make 8elieve Castle/LCSI	4-7	$37.95	$37.95
Netscape Navigator - Personal Edition/Ventana	13+	$36.95	n/a
Our Times Multimedia Encyclopedia/Vicarious Inc.	12+	$54.95	$54.95
Pantsylvania/Headbone	4-8	$34.95	$34.95
Play Piano/Midisoft	8+	$44.95	n/a
Putt Putt Saves the Zoo/Humongous	3-8	$34.95	$34.95
Quicken/Intuit	14+	$62.95	$62.95
Read, Write and Type!/The Learning Co.	6-8	$46.95	n/a
Resume Maker/Individual Software	16+	$37.95	$37.95
Star Trek Next Gen:Final Unity/Spectrum Holo8yte	11+	$62.95	n/a
Sting: All This Time/Starwave	13+	$48.95	n/a
Team XTreme:Operation Weather Oisaster/Discovery	10+	$34.95	$34.95
The 11th Hour/Virgin Interactive	11+	$59.95	$59.95
The Indian in the Cupboard/Viacom New Media	6+	$34.95	$34.95
The Muppet CO: MUPPETS INSIOE/Starwave	8+	$39.95	n/a
The Renaissance of Florence/E.M.M.E.(Philips)	12+	$54.95	n/a
Toy Story Animated Storybook/Disney	4-9	$34.95	$34.95
Triazzle/8erkeley Systems	8+	$19.95	$19.95

HOME PC 1996 3 & 4 STAR RATINGS

Title/Publisher	Rating	Ages	DOS/Win/ Win95 CD	Mac CD
3D Movie Maker for Windows 95/Microsoft	3.5 Stars	8+	$39.95	n/a
American Heritage:The Civil War/8yron Preiss	3 Stars	10+	$44.95	$44.95
Arcade Mania/Corel	3.5 Stars	8+	$24.95	n/a
Awesome Animated Monster Maker/HMI	3 Stars	3-8	$29.95	$29.95
8ig Job/Discovery	4 Stars	4-8	$34.95	$34.95
Cousteau's World-Cities Under the Sea/Enteractive	3.5 Stars	10+	$35.95	n/a
Crayola Art Studio 2/Micrografx	3.5 Stars	3-12	$38.95	$38.95
Cybercrafts:Fun With Electronics/Philips Media	3 Stars	8+	$35.95	$35.95
Day After Trinity/Voyager	4 Stars	12+	$29.95	$29.95
Emergency Room/I8M	4 Stars	12+	$44.95	n/a
Endorfun/Time Warner Interactive Group	3 Stars	12+	$24.95	$24.95
Gamebreak! Timon and Pumbaa/Disney	3.5 Stars	5+	$34.95	n/a
Golf Tips: 8reaking 100/Diamar	3 Stars	12+	$42.95	$42.95
Home Improvement 1-2-3/Multicom	3.5 Stars	10+	$36.95	$36.95
Hyper-3-0 Pinball/Virgin Interactive	3.5 Stars	8+	$39.95	n/a
In the 1st Oegree/8roderbund	3 Stars	12+	$57.95	$57.95
Inside the Vatican/Jasmine Multimedia	3 Stars	12+	$74.95	n/a
Invisible Universe/Voyager	3.5 Stars	10+	$39.95	$39.95
kidDraw Tablet/kid8oard	Top 100 H/W	3+	$119.95	$124.95
Life's Greatest Mysteries/A.D.A.M. Software	3 Stars	10+	$39.95	$39.95
Lion King Activity Center/Disney	3.5 Stars	5+	$34.95	$34.95
Logical Journey of the Zoombinis/8roderbund	4 Stars	8-12	$39.95	$39.95
Madeline & the Puppet Show/Creative Wonders	3 Stars	5-8	$34.95	$34.95
GIFTS TO GO! Madeline CD, watch, cup & toothbrush		5-8	$39.95	n/a
Magic Carpet 2/Electronic Arts	3.5 Stars	12+	$52.95	n/a
Magic School 8us Explores the Ocean/Microsoft	4 Stars	6-10	$39.95	n/a
Music Central 96/Microsoft	4 Stars	14+	$39.95	$39.95
Multimedia Typing Instructor/Individual Software	3.5 Stars	6+	$28.95	n/a
Natural Keyboard/Microsoft	Top 100 H/W	3+	$94.95	n/a
NFL Math/Sanctuary Woods	4 Stars	8-12	$34.95	$34.95
One Small Square Backyard/Virgin Sound&Vision	3 Stars	8+	$25.95	$25.95
Our Times Multimedia Encyclopedia/Vicarious Inc.	3.5 Stars	12+	$54.95	$54.95
Dzzie's Travels:Oestination Mexico/Oigital Impact	3 Stars	5-10	$19.95	$19.95
Dzzie's Travels:Japan/Digital Impact	3 Stars	5-10	$19.95	$19.95
PGA Tour 96/EA Sports	3 Stars	10+	$44.95	n/a
Pocahontas Animated Storybook/Oisney	3 Stars	3-6	$34.95	$34.95
Putt Putt Saves the Zoo/Humongous	4 Stars	3-8	$34.95	$34.95
Read, Write and Type!/The Learning Co.	4 Stars	6-8	$46.95	n/a
Shivers/Sierra Online	4 Stars	13+	$37.95	n/a
SideWinder 30 Pro (Joystick)/Microsoft	Top 100 H/W	5+	$59.95	n/a
Simisle/Maxis	3 Stars	8+	$34.95	$34.95
Snootz Math/8umptz Science 8undle/Theatrix	3 Stars	6-10	$44.95	$44.95
Sting: All This Time/Starwave	3.5 Stars	13+	$48.95	n/a
Strategy Games of the World/Edmark	3.5 Stars	8-14	$39.95	$39.95
Team XTreme: Operation Weather Oisaster/Oiscovery	4 Stars	10+	$34.95	$34.95
The 11th Hour/Virgin Interactive	3 Stars	11+	$59.95	$35.95
The Indian in the Cupboard/Viacom New Media	4 Stars	6+	$34.95	$34.95
The MM Encyc. of Science Fiction/Grolier	4 Stars	12+	$39.95	$39.95
Theater of the Imagination/Voyager	4 Stars	12+	$29.95	$29.95
Torin's Passage/Sierra Online	3 Stars	6+	$49.95	$49.95
Where's Waldo? at the Circus/WEA	4 Stars	6+	$25.95	$25.95
Winnie the Pooh Animated Storybook/Disney	3.5 Stars	3-9	$34.95	$34.95

MasterCard VISA American Express DISCOVER

ORDERING IS SO EASY **CALL 1-800-338-3844**

TEC Direct **The Edutainment Catalog** P.O. Box 21330, Boulder, CO 80308 303-444-3700 Fax 800-226-1942

Free Technical Support — CALL FOR A FREE CATALOG! — Discount Prices

You & Your Family Will Love Software!

HyperStudio — Creativity

Multimedia **YOU** can make! As visual communication becomes ever more important in this Age of CD-ROM and Internet, simple tools to create your own interactive presentations are a must! **HyperStudio** lets you successfully combine text, graphics, movies, and sound into exciting projects. For family and community projects, interactive school reports, and executive-level business presentations, **HyperStudio** is being used by more families than all the other multimedia authoring programs combined! **HyperStudio**'s innovative approach to multimedia communication includes Mac-Windows project compatibility, the ability to create & edit QuickTime movies, button and hypertext links to Internet connections, direct access for QuickTake, DC-40, and all video cameras, built-in capture of images with AV Macs, and the widest range of file-type compatibility for graphics and sounds. Regardless of your learning style, mode of expression, or grade level, **HyperStudio** makes it possible for non-technical users to create interactive multimedia projects with the look and feel of CDs!

329003 (Windows,CD) - $119.95
329004 (Mac,CD) - $119.95 (diskette versions available!)

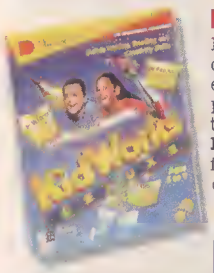
10+ AGE | WINDOWS | MACINTOSH | DISKETTES | CD-ROM | AWARD

ArtApart: Puzzles To Solve And Resolve — Puzzles

Imagine the perfect jigsaw puzzle. A clear, life-like picture with pieces cut and sized just the way you want them. A few large pieces for kids — or over a thousand to challenge the most experienced jigsaw puzzler. A puzzle that can be put away and taken out any time, without losing your place. Where the right pieces snap into place on the first try, and NEVER get lost under the sofa. Well, the perfect jigsaw puzzle is here. **ArtApart**'s over 200 fabulous puzzles (or use your own art!) are all that — and more!

542003 (Win95/Windows,CD) - $29.95

7+ AGE | WINDOWS | WINDOWS 95 | CD-ROM



Kid Works Deluxe — Creativity

Have hours of ultra-cool, ultra-fun adventure creating your very own multimedia stories — and even hear them read back by the computer! A word processor **and** a paint program, packed with inventive tools, animated stamps, and wild sound effects, **Kid Works Deluxe** adds up to unlimited possibilities for expression. Even share creations over the Internet!

117109 (Win95/Windows/Mac,CD) - $35.95

4-10 AGE | WINDOWS | WINDOWS 95 | MACINTOSH | CD-ROM | AWARD

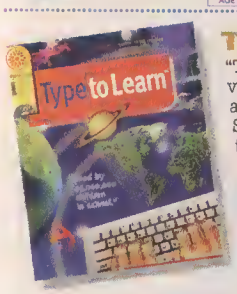
Free Davidson CD Sampler with Surprise Offer Inside! (purchase required)

Reading Blaster Jr. — Reading

Join Kid Blasternaut and the Blaster Pals on five surprise-laden missions into a 3D multimedia fantasy world loaded with music, video, and out-of-this-galaxy fun! From a 200-word "talking dictionary" to a silly sentence maker, build those phonics skills necessary to begin reading. Also includes 20 original storybooks.

117123 (Win95/Windows,CD) - $34.95

4-7 AGE | WINDOWS | WINDOWS 95 | CD-ROM | AWARD



Type to Learn — Typing

"The most effective typing program in the universe!" School proven and kid tested — just ask the 15,000,000 kids who have used it — Sunburst's **Type to Learn** is more than a simple typing program, with games, spelling and grammar practice, and a slew of important facts in a range of subjects! All you need for typing success!

272003 (Windows,CD) - $37.95

8-14 AGE | WINDOWS | CD-ROM

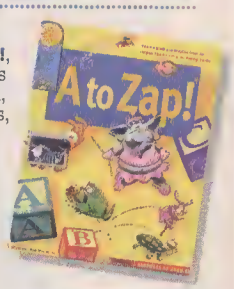
SUNBURST

A to Zap! — Early Learning

Alphabet adventures await in award-winning **A to Zap!**, where an activity for each letter of the alphabet spells hours of fun! Playful characters, whimsical animation, lively music, voices and sounds teach letters, numbers, shapes, colors, and concepts such as opposites and matching — while your kids are having a great time Ensembling an Elegant Elephant, Abetting Acrobatic Airplanes, Zapping Zany letters, and more!

272001 (Windows/Mac,CD) - $39.95

3-6 AGE | WINDOWS | MACINTOSH | CD-ROM | AWARD



All Star Kid's Pack — Early Learning

Famous friends teach your child essential skills! Practice reading with **Muppets** or direct the story outcome in **Rudyard Kipling's Jungle Book** and **Peter Pan**. "**Hello, Kitty**," it's a fun introduction to arithmetic, shapes, colors and numbers! **Art Center** is a full-featured paint, drawing, and sticker program. And dive into an ocean of math skill building in the captivating adventure, **Math Ace Jr.**.

454003 (Windows/Mac,CD) - $29.95

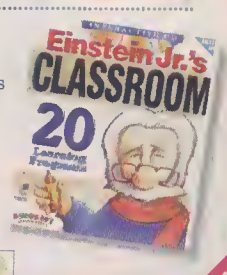
3-8 AGE | WINDOWS | MACINTOSH | CD-ROM | AWARD

Einstein Jr.'s CLASSROOM — Learning

Using your brain is totally awesome and totally fun as you journey around the world learning about math, science, history, and language! With 20 different interactive educational programs — each with varying difficulty levels and terrific 3-D graphics — this ingenious title will challenge everyone in your family. Kid-tested and fun, **Einstein Jr.'s CLASSROOM** provides positive reinforcement and builds top-notch academic skills.

573001 (Win95/Windows,CD) - $29.95

8+ AGE | WINDOWS | WINDOWS 95 | CD-ROM



If you don't see it here, please call us toll-free for information and pricing on all of the best-selling software titles for your whole family!

Only $4.00 shipping & handling charge for one item, or $6.00 for two or more items. If you can't find what you are looking for or you have questions about your hardware compatibility, please call. We offer hundreds of non-violent Edutainment titles for children and adults on diskette and CD-ROM. Please call to receive our free catalog. School purchase orders are welcome.

30 DAY SATISFACTION GUARANTEE

Key=1434

CIRCLE READER SERVICE NUMBER 205

FOUR WORDS FOR THE BEST FOREIGN LANGUAGE PROGRAM EVER!

The Sony Walkman® *stereo cassette player features convenient automatic shutoff in the playback mode, Mega Bass and ultra-light headphones. A $24.95 value–yours FREE with purchase! Sony and Walkman are trademarks of Sony.*

A World Of Choices:
Levels I, II and III sold separately.

Spanish I, II or III
German I, II or III
French I, II or III
Italian
Japanese
Mandarin Chinese
Russian
Modern Hebrew
Modern Greek (10 casserte program)
Arabic
Portuguese
English (ESL) for Spanish Speakers
English (ESL) for Japanese Speakers

Language on the run! *SyberVision's Pimsleur Language Programs go where you go. Learn anywhere and anytime you like.*

1 FREE

Welcome to the SyberVision Language System, the all-audio language cassette program based on The Pimsleur Method, the most powerful learning method available anywhere. Now you can learn by listening on your FREE Sony Walkman® stereo cassette player! It's our special gift to help you get started with the foreign language of your choice. (See details at left.)

2 FAST

Imagine speaking the language from Day One! It really is that quick and that easy. As you learn at your own pace, you discover how to listen, think, respond and apply the language, literally after the very first lesson. Give it just 30 minutes each day and in 30 days, you'll be functional in that language–speaking and conversing comfortably...guaranteed! You'll learn–or you don't pay. That's all there is to it!

3 FUN

First, there's no boring memorization, no workbooks. With our easy-to-learn methods and tapes-to-go program, you just won't find a more entertaining and interesting way to learn a new language and to enjoy success from beginning to end. Second, with your Free Sony Walkman, you're instantly portable so you can learn as you're walking, commuting or jogging!

4 GUARANTEED

We absolutely guarantee that this unique program is the most effective way to learn a foreign language. The reason? Dr. Pimsleur's renowned scientific research. With his method you are an active participant, involved in intensive practice sessions with native speakers of the language. There's no other foreign language program like it and it comes to you with our extraordinary 6 Month Guarantee: if you are not completely satisfied, return the program within six months of receipt for a refund of the purchase price!

Why is SyberVision The Best?

Because we teach you to think in the language, speak without memorizing and understand without translating. You'll rediscover the natural language process, the same experience you had learning your first language as a child.

Call us directly at
1-800-678-0777
(Outside the U.S. and Canada call (415) 288-3951)

and we'll send you the SyberVision Language System of your choice– including 15–16 audiocassettes (each side approximately 30 minutes long; lesson lengths vary by program), a user's guide, and your Free Sony Walkman. All for just $295 plus shipping. Order a second program now and save $100 instantly! Order a third now and save a total of $200!

SYBERVISION®
One Sansome St., Suite 810, Dept. C69, San Francisco, CA 94104

CIRCLE READER SERVICE NUMBER 204

YES ☐ Please rush me the **SyberVision Pimsleur Language Program(s)** of my choice. I understand that if after using the programs as directed, I am not completely satisfied, I can return the program within six months of receipt for a refund of the purchase price.

NAME (Please print)

ADDRESS (No P.O. Boxes)

CITY STATE ZIP

( ) DAYTIME PHONE

Title	Unit Price	Total Price
PROGRAM #1	$295 (US$) +FREE WALKMAN	
#2	$195 (US$) (SAVE $100)	
#3	$195 (US$) (SAVE $100)	
SHIPPING & HANDLING: 1 program.....$15 2 programs.....$20 3 programs.....$25 Please call for rates outside the Continental U.S. and for express delivery.	Subtotal	
	Calif. Residents Add Appropriate Sales Tax	
	Shipping & Handling (See rates at left)	
PLEASE REMIT IN U.S. DOLLARS Canadian residents responsible for GST.	TOTAL	

METHOD OF PAYMENT:

☐ Check or Money Order CHECK NO.

☐ I prefer to use the following credit card (check one):

VISA MasterCard DISCOVER

☐ VISA ☐ MASTER CARD ☐ DISCOVER ☐ AMERICAN EXPRESS

YOUR CARD NUMBER:

EXPIRATION DATE: MO. YR.

SIGNATURE

CALL TOLL FREE NOW
1-800-678-0777
Outside the U.S. and Canada call (415) 288-3951
OR FAX your completed form to (415) 362-6832
OR return your order form in an envelope to:
SYBERVISION
One Sansome St., Suite 810, Dept. C69
San Francisco, CA 94104

SYBERVISION®

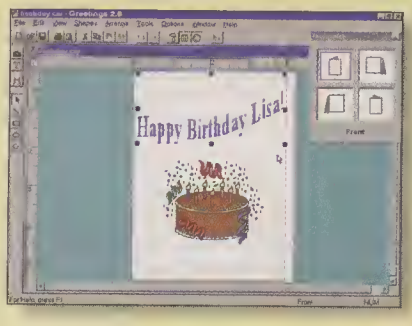
Still easy—but more powerful. Still fun—but more flexible.

More valuable than ever—still ~~just $39~~ FREE!

Windows® 95-compatible. Now available on Macintosh and CD-ROM, too!

It's ready, America! We've updated and enhanced your favorite FREE software program for creating cards, posters and banners—from top to bottom. Welcome to all-NEW Greetings 2.0! It's still easy, still fun—and still FREE!

First, pick your favorite format and graphics.



Then, add text and print—it's simple!

NEW! More than 60 eye-catching graphics!
NEW! Place as many graphics as you wish on each page!
NEW! Stretch, shrink, copy graphics anywhere in your layout!
NEW! Position and size objects with Zoom, Ruler, Guideline and other user-defined tools!
NEW! Print Preview lets you see your documents just as they'll print!
AND MORE!

Join the hundreds of thousands of satisfied customers who save money—and have fun—creating their cards, posters and banners the fast, easy, FREE way—with Greetings 2.0!

Through this special offer, you can have Greetings 2.0—the very latest version of this popular program—not for $39, not for $29—but FREE! (You pay just $8.95 shipping and handling.)

The very latest in software—free!

Greetings 2.0 is NOT a limited, demonstration program that requires you to pay more to get the real thing. No, Greetings 2.0 is a complete, high-performance program. You'll be proud to add it to your software collection!

It's so easy to use. Just select a layout, insert any of the more than 60 included graphic images, customize your text, and print! That's all it takes to create unique, personal holiday greeting cards, for sale posters, party banners and so much more.

Your options are virtually limitless!

Why is Greetings 2.0 free?

It's simple. We want you to become one of Parsons Technology's more than 3 million loyal, satisfied customers. And giving you free software is one of the best ways we know.

You'll love Greetings 2.0, so we're sure you'll turn to many other of our more than 70 other software titles for affordable, high-performance solutions in the future!

For your FREE copy of Greetings 2.0, call

1-800-243-6169

Operators are standing by 24 hours a day, 7 days a week. Or fax the attached order form to 1-319-395-7449 or mail it to the address below. Or order online: (http://www.parsonstech.com) America Online®: (keyword PARSONS) CompuServe®: (GO PA).

Hurry—this offer is limited to the first 50,000 orders!

☑ Yes! Send me Greetings 2.0 FREE*!

***Please add $8.95 for shipping and handling ($11.95 for Canadian orders and $20.95 for all other orders outside North America). No purchase orders, please. Includes detailed User's Guide and expert technical support.**

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone ( ) _____

Evening Phone ( ) _____

Disk Size: ❑ 3.5" ❑ 5.25" ❑ CD-ROM (*We ship HD 3.5" disks if unmarked.*)
Disk Format: ❑ Windows 3.1 ❑ Windows 95 ❑ Macintosh ❑ Power Macintosh
Payment Method: ❑ Check or Money Order enclosed ❑ Visa ❑ MasterCard ❑ Discover ❑ American Express

Card # _____ Exp. _____

❑ Please just send me your FREE software catalog!

Designed for Microsoft® Windows®95 | Mac™OS | PARSONS TECHNOLOGY An Intuit Company | WORKS WITH WINDOWS® 3.1 AND WINDOWS® 95

1-800-243-6169

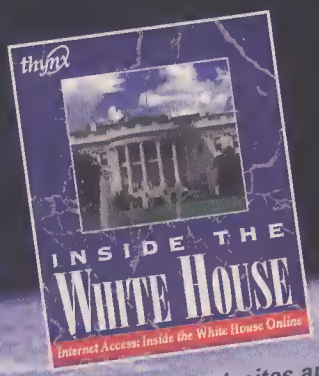
Product Development Center, One Parsons Drive, Hiawatha, IA 52233

Your priority code is 771296F

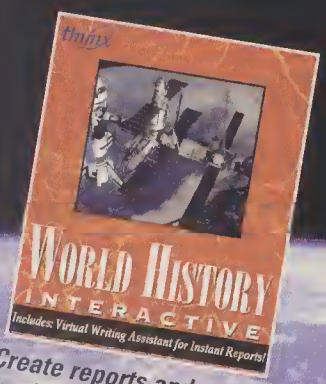
Includes MORE THAN 60 GRAPHIC IMAGES!

SYSTEM REQUIREMENTS: Greetings 2.0 for Windows requires an IBM® or compatible PC, 4MB RAM, Microsoft® Windows 3.1, Windows NT 3.5 or later, or Windows 95, and 6MB hard drive space. Mouse required. **Greetings 2.0 for Macintosh** requires System 7.0 or better, 4MB RAM (8MB recommended), an 11-inch monitor or larger (Powerbook monitor ok) and 5MB hard drive space. All CD-ROM versions requires a CD-ROM drive. Shipping and handling are non-refundable. Copyright © 1996 Parsons Technology, Inc. All rights reserved. Greetings is a trademark of Parsons Technology, Inc.

Higher Education.



- Link to related web sites and e-mail the President with Internet access.
- Tour the White House and learn its fascinating history.
- Discover the lives of U.S. Presidents and First Ladies.



- Create reports and term papers in six easy steps with the Virtual Writing Assistant.
- Browse history web sites to stay updated on current events.
- Expand your knowledge with built-in quizzes, study guides, and over 400 books.

- Relive the Civil War in over 80 video reenactments.
- Explore the lives of two great generals through their complete biographies and memoirs.
- Gain insight from in-depth analyses by renowned historians.

thynx™
to enrich, empower and entertain

FREE Demo Disc* or Catalog call:
800-828-4766 or e-mail: demo@thynx.com

*$2.95 S&H

CIRCLE READER SERVICE NUMBER 201

A HAND can lift an entire community.

THROUGH THE DEDICATED VOLUNTEERS AND NONPROFIT ORGANIZATIONS OF YOUR UNITED WAY, YOUR GENEROSITY CAN HELP THOSE WHO NEED HELP IN YOUR COMMUNITY. AND MAKE ALL THE DIFFERENCE IN THE WORLD. PLEASE HELP.

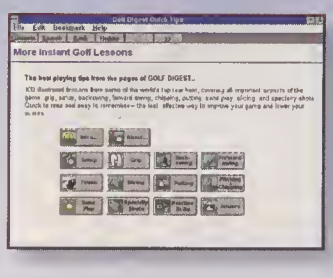
United Way

Reaching those who need help.
Touching us all.

CIRCLE READER SERVICE NUMBER 73

HERE'S FREE SOFTWARE TO HELP YOU IMPROVE YOUR GOLF GAME!

Improve your game with 100 lessons from the editors at *Golf Digest.*® A $39 value, *Golf Digest*® Quick Tips™ for Windows is yours FREE* if you order now.



Click on the *Golf Digest*® Quick Tips icons until you find the lesson your golf game needs. From hook to slice and grip to swing, Quick Tips has it all.

Golfers across North America count on Instant Lessons from *Golf Digest*® Magazine. Every month, they turn to the *Golf Digest*® editors for tips, pointers and lessons—all designed to help any golfer from beginner to resident pro.

Now you can get the same help for your game! Presenting *Golf Digest*® Quick Tips—100 of *Golf Digest's*® most popular lessons fot you to enjoy in your own home, at your PC—not for $39—but FREE! (You pay just $8.95 shipping and handling.)

A treasury of golfing knowledge—just a mouse click away. And it's FREE!

Golf Digest® Quick Tips is NOT shareware. It is NOT a limited, demonstration program that requires you to pay more to get the real thing. No, *Golf Digest*® Quick Tips is a complete program that you'll be proud to add to your software collection.

Using *Golf Digest*® Quick Tips is easy. Simply click on the *Golf Digest*® Quick Tips icons until you find the lesson that your golf game needs. From hook to slice and grip to swing, *Golf Digest*® Quick Tips has the lessons you need.

It even includes your personal guide to the language of the game!

When you order your FREE *Golf Digest*® Quick Tips, you'll also get our software glossary of golf terminology. Filled with more than 300 definitions and explanations on everything from the real meaning of *golf club* to the history behind the USGA,® the glossary is the perfect complement to your love of the game.

Why is *Golf Digest*® Quick Tips FREE?

It's simple. We want to make you one of Parsons Technology's more than 3 million loyal, satisfied customers. And giving you free software is one of the best ways we know. You'll love Quick Tips, so we're sure you'll turn to many of our more than 70 other software titles—including our full line of *Golf Digest*® software—for affordable, high-performance solutions in the future.

System Requirements: Golf Digest® Quick Tips requires an IBM® or compatible PC, 4MB RAM, Microsoft® Windows 3.1 or later, and 2MB available hard drive space. Printer and mouse recommended but not required. Copyright © 1996 Parsons Technology, Inc. All rights reserved. Golf Digest is a registered trademark of NYT Sports/Leisure Magazines, a division of The New York Times Company. $8.95 s/h charge is non-refundable.

Order now and we'll rush you a great way to improve your golf game: Golf Digest® Quick Tips for Windows! Hurry—this offer is limited to the first 250,000 orders! Call today for your FREE copy of Golf Digest® Quick Tips:

☎ 1-800-243-6169 ☎

24 hours a day, 7 days a week! Fax the order form to 1-319-395-7449; or order online: (http://www.parsonstech.com), CompuServe® (Go PA), America Online® (keyword PARSONS); or clip and send this coupon.

Includes GOLF GLOSSARY!

☑ YES! Please send me *Golf Digest*® Quick Tips™ for Windows for ~~$39~~ FREE*!

*Please add $8.95 for shipping and handling. ($11.95 for Canadian orders; $20.95 for all orders outside North America.) Includes user information and technical support.

WORKS WITH WINDOWS® 3.1 AND WINDOWS® 95

Name _____

Address _____

City _____

State _____ Zip _____

Day Phone ( ) _____

Evening Phone ( ) _____

DISK SIZE: ❑ 3.5" or ❑ 5.25" *We will ship HD 3.5" disks if boxes are unmarked.*

METHOD OF PAYMENT: ❑ Check or Money Order enclosed (no purchase orders, please)
❑ Discover ❑ Visa ❑ MasterCard ❑ American Express

Card # _____ Exp. _____

❑ No, I don't want to order now—but send me your FREE catalog.

MAIL TO: Parsons Technology
Product Development Center
One Parsons Drive
PO Box 100, Hiawatha, IA 52233-0100

OR CALL: ✆1-800-243-6169

Your Priority Code is 571296B

PARSONS TECHNOLOGY An Intuit Company

2747

"The Definitive Simulator of Sailing" – PC Magazine

SAIL 95

New!
CD-ROM

Microsoft Windows 95

Includes both
32 Bit (for Windows 95)
and
16 Bit (for Windows 3.1)
programs

The Official Simulator
America's Cup '95

Man the helm of a five million dollar racing yacht!

Order direct
for $49 Manufacturer's Special
Satisfaction Guaranteed
(860) 349-2011
(+ $5 S&H, $10 overseas, CT residents add $2.94 tax)

Fun for Novice or Expert!

Great for Father's Day!

SAIL 95 features:

- Breathtaking 1024 x 768 SVGA graphics.
- Sophisticated AI.
- Easy to use interface.
- Highly accurate dynamic modeling.
- Digital sound and music.

SAIL 95 requires:

- 486 DX or better PC.
- 8 Mb RAM
- 1 Mb SVGA video card.
- Monitor capable of 1024 x 768.
- MS Windows.
- Mouse (joystick supported).
- Sound card recommended.

"...simulates the Cup course in a significant manner... Very accurate to what's on the water."
— John MacGowan
A³ Women's Coach

"Great game! Wonderful graphics! Blows existing simulators away! This simulator does for sailing what Microsoft Flight Simulator did for flying."
— Chris Hefele
Customer

"Makes America's Cup racing approachable and a lot more fun than watching it on ESPN."
— *Computer Gaming World*

"So realistic Cup crews are addicted... SAIL 95 is an amazing computer program."
— *Sailing Magazine*

"The best sailing simulator yet."
— *Sydney Morning Herald*

If this were any more real, you'd get wet!

VIVID SIMULATIONS

Vivid Simulations, Inc., 164 Higganum Road, Durham, CT 06422. Telephone: (860) 349-2011

CIRCLE READER SERVICE NUMBER 221

SIX DIFFERENT MEDICAL SPECIALISTS

24 HOURS A DAY!

All 6 for $39.95

DR. SCHUELER'S

MEDICAL CENTER 6

SIX CD-ROM VALUE PAK

SIX CD-ROM VALUE PAK!

ONLY $39.95 TO ORDER CALL 1-800-788-2099

OUTSIDE USA 407-779-0310

Pharmacist On Call

Do you know that over a quarter-million people were hospitalized this year due to harmful reactions to medications. Don't take another pill without consulting ***Dr. Schueler's, The Corner Drug Store LE.*** Detailed information on over 8,000 prescription and nonprescription drugs, cross-referenced with tons of full-motion video!

Adventures In Anatomy!

Discover the miracle of the human machine with ***BODYWORKS 3.0 CD.*** Features include: 3D rotating views, colorful anatomic graphics with cutaways and magnified views, "speech back" pronunciation of terms, phonetic "smart search" complete health section, lesson plans and quizzes, printable graphics and text, animations, and full-motion videos.

The Doctor Is In!

Award-winning ***Home Medical Advisor Pro V4*** combines video, sound, and thousands of images to produce a "multimedia doctor" that can diagnose, talk, access disease information and thousands of other health topics. Endorsed by the American College of Emergency Physicians and winner of the ***1995 National Health Information Award!***

OVER $250 IN VALUABLE SOFTWARE!

Secrets To Burn Fat & Build Muscle Fast!

Discover the secrets that can help you get those washboard abs, the super low body fat look, and superior health. ***BodyCraft*** is an exciting new software technology based on a proven scientific method developed by renowned scientist, Dr. Fred Hatfield. Your new body is in this box!

Virtual Autopsy!

Ever seen a real autopsy? ***Visual Man 2.0 Lite*** includes hundreds of cross-sectional images of a human cadaver in astonishing detail! Digital photographs of more than 1,800 images taken from the body of an executed murderer provide one of the most powerful and informative learning experiences on CD-ROM. Derived from the National Library of Medicine, Visible Human Project.

Disease Prevention Made Easy!

With over 70 million people in the U.S. suffering from heart disease and cancer, can you afford to take chances with your health? ***Dr. Schueler's SelfHealth*** performs complex health risk analysis, creates customized medical-legal documents, has extensive libraries on preventive medicine and a medical glossary that pronounces medical terms with a mouse click.

REQUIREMENTS: WINDOWS 3.1 OR WIN 95

Dr. Schueler's Health Informatics, Inc. P.O. Drawer 410129 • Melbourne, FL 32941-0129

Fax: 407-777-0323 E-mail: esellers @ iu.net

All trademarks and registered trademarks are the property of their respective owners

CIRCLE READER SERVICE NUMBER 322

They promised you stunning graphics but you got a slide show.

It's time for a new system

Whether it's for games or multimedia, you need speed so today's demanding graphics don't look choppy. And nothing's faster than my Mach V 166. Just ask PC Magazine: "The Mach V performed well on most of our benchmark tests. It even bested the Gateway P5-166, an Editor's Choice in our previous issue's home PC roundup."

Kelt Reeves
President and Chief Test Pilot

The Mach V basic system, for $3,495:

- Intel Pentium® 166 MHz Processor - 100% compatible with all PC software
- Falcon dual voltage PCI bus motherboard - accepts 75-200 MHz CPUs
- 256K of 8ns synchronous burst cache - expandable to 512 K
- 16 megabytes of 60ns EDO RAM expandable to 128
- 64 bit PCI graphics accelerator with 1 meg EDO video memory
- 1.68 gigabyte 10ms Mode 4 Enhanced IDE hard drive
- 8 speed caddyless CD-ROM drive
- Creative Labs Soundblaster 16™
- Sony SRS-D2KPC shielded satellite/subwoofer 3 piece speaker system
- CH Products Flightstick PRO™ & high-speed dual gameports
- CTX 15" digital SVGA monitor, .28dp, flatscreen
- Microsoft Mouse™
- 104 key Windows 95™ ready keyboard with wrist rest
- Windows 95™ on CD
- One year parts & labor warranty including one year on-site service
- Customized BIOS', active refrigeration cooling system, advanced power supplies, and many other unique features

All of our systems are custom built by gamers for gamers

Trademarks are the property of their respective owners. Optional equipment pictured.

THE HIGH END IS WITHIN REACH

Toll-free 1 - 8 8 8 - F A L C O N - 1

http://www.falcon-nw.com

FALCON NORTHWEST
COMPUTER SYSTEMS

CIRCLE READER SERVICE NUMBER 323

the HOMEPC connection

An **exciting section** *where you'll* **discover** *a world of* **inviting** *products to fulfill your demands and wish lists.*

Products that will help you gain **maximum productivity** *as you work, and peak enjoyment as you learn, play and relax.*

Just look for the **distinct** *red border and you'll find* THE HOMEPC CONNECTION.

ACCESSORIES

Best Checks....212
Compbell-Jones Development....212
CEI Multimedio....211
Compunnel Softwore Group, Inc.....213
Dole Loborotories....213
Designer Checks....211
Fomily Screen Sover....213
InterLotto....212
IRIS Ltd.....212
KEYTEC, Inc.....213
Smort Luck Softwore....212

BUSINESS OPPORTUNITIES

At-Home Professions....207
Best Personolized Books....207
CASI....207
Computer Business Services, Inc.....207
Hefty Publishing Compony....206
Notionol Cloims Service....206
Notionol Computerized Business Services, Inc.....211
PCDI....206
Precision Doto....207

EDUCATION

Americon Institute for Computer Sciences, Inc.....214
Columbio Southern University....214
Kirkbride Technology....215

ENTERTAINMENT

CD-ROM EXCHANGE....214
Consolidoted CD ROM....214
SAIL AWAY....213
Sir Softwore....214

FINANCE

Surodo Solutions, Inc.....211

HOBBIES

FLOWERscope....216
HobbyWore....216
M&R Technologies, Inc.....215
PlontCore Informotion Systems, Inc.....216
QuiltSOFT....216
The Gordener's Friend....216

ONLINE

Venture Communicotions Electronic Medio....206

This index is provided as an additional service by the publisher, which assumes no liability for errors or omissions.

advertisers index

This index is provided as an additional service by the publisher, which assumes no liability for errors or omissions.

r. s. number	advertiser name	page number
1	**3M**	136
2	**Access Software**	146-147
3	**Acer America Corp.**	47
4	**Activision**	86
69	**Agfa**	57
	American Institute for Computer Sciences Inc.	194
5, 7	**American Power Conversion**	16-19, 140
	Anthro	22
	Best Personalized Books	192
8	**Books That Work**	93
201	**Bureau Of Electronic Publishing**	182
9	**Cakewalk Music Software**	139
315	**Campbell-Jones Development**	195
10	**Canon Computer Systems**	2-3
11	**Canon Home Office Products**	83
301	**CASI**	191
310	**CD-ROM Exchange**	194
67	**Cheyenne Software Inc.**	91
12	**Chrysler Corp.**	12-13
57	**Click Art**	168
309	**Columbia Southern University**	194
	Computer Business Services Inc.	192
305	**Consolidated CD-ROM**	193
15, 17, 16	**Corel Systems Corp.**	39, 84, 128
18, 19	**Creative Labs**	9, 63
318	**Dale Laboratories**	196
320	**Designer Checks**	196
317	**Digital Memories**	196
322	**Dr. Schueler's Health Infomatics Inc.**	185
20	**EarthLink Network Inc.**	145
308	**Edirol**	194
23, 22, 21	**Enteractive**	131, 133, 135
	Epson	79
323	**Falcon Northwest Computer Systems**	186
71	**Falcon Safety Products**	127
312	**FLOWERscape**	195
24	**Fractal Design**	72-73
	Fuji	26-27
	Gateway 2000	52-55
26	**Gryphon Software Corp.**	165
27	**Hayes**	142
	Hefty Publishing Co.	191
	Hewlett-Packard Co.	C2-1, 28-29
313	**HobbyWare**	195
28	**IDT Internet**	161
306	**In House Travel Network**	193
30, 29	**Inscape Time Warner**	69, 71
	Intel Corp.	40-41
32	**InterGO**	141
33	**International Jensen**	102
34	**Interplay Productions**	155
	Iomega Corp.	11, 109, 111, 113, 115, 117
319	**IRIS Ltd.**	196
314	**Keytec Inc.**	195
	Logitech	6
36, 35	**LucasArts**	122, 151
311	**M&R Technologies Inc.**	195
37	**MECC**	162
38	**Micron Computer**	C4-C6
39	**Microtek**	14
40	**MIDIsoft**	176
	Mystic Color Lab	153-154
300	**National Claims Service**	191
302	**National Computerized Business Services Inc.**	192
41, 42	**NEC Technologies Inc.**	4-5, 100
43	**Netcom**	21
44	**Nokia**	30
	NRI Schools	173
	Okidata	99
202, 203	**Parsons Technology**	181, 183
	PCDI	192
46, 45	**Philips Interactive Media**	33, 42-43
47	**Piranha Interactive**	90
65	**Play Inc.**	134
48	**Quarter Inch Cartridge**	38
68	**Quarterdeck Corp.**	59
49	**Randomsoft/Smart Games Inc.**	167
303	**Sail Away**	193
74	**Samsung**	48-49
51, 54, 53, 55, 52, 50	**Sierra On-Line**	36, 85, 87, 89, 130, 175
307	**Sir Software**	194
316	**Smart Luck Software**	196
304	**Software of the Month Club**	193
56	**Sound Source Interactive**	159
301	**Surado Solutions Inc.**	191
204	**Sybervision Systems**	180
66	**T/Maker Company**	132
58	**The Eastman Kodak Company**	67
205	**The Edutainment Company**	178-179
59	**Toyota**	35
60	**Twentieth Century Fox**	148
	US Online	88
	U.S. Robotics	68, 156
61	**Virgin Sound & Vision**	70
62	**Vocaltec Inc.**	23
63	**Voyetra Technologies**	20
	Windjammer Barefoot	92
64	**Yamaha Corp.**	24

HomePC (ISSN #1073-1784), Vol. 3, No. 7, is published monthly for $21.97 per year by CMP Media, 600 Community Drive, Manhasset, NY 11030. Periodicals postage paid at Manhasset, N.Y., and additional mailing offices. **POSTMASTER:** Send address changes to *HomePC*, P.O. Box 420211, Palm Coast, FL 32142-0211. Registered for GST as CMP Media. GST #138355995, agreement number 0497827. **Subscriber information:** To obtain information and/or order a subscription, call (800) 829-0119 or (904) 445-4662, ext. 817. Basic annual subscription rate: one year (12 issues) U.S. $21.97, two years (24 issues) U.S. $36.97. Canadian orders add U.S. $16 per year postage (includes GST); all other international orders add U.S. $18 per year postage. All foreign orders must be accompanied by payment in U.S. funds. Send address changes to *HomePC*, P.O. Box 420211, Palm Coast, FL 32142-0211.

FUN...FANTASTIC...FREE...INFORMATION!!

ISSUE DATE - JULY 1996 EXPIRATION DATE - OCTOBER 31, 1996

Circle the numbers on the card that correspond to the ads or articles you'd like more information about.

001	044	087	130	173	216	259	302	345	388	431	474	517	560	603	646	689	732	775	818	862
002	045	088	131	174	217	260	303	346	389	432	475	518	561	604	647	690	733	776	819	863
003	046	089	132	175	218	261	304	347	390	433	476	519	562	605	648	691	734	777	820	864
004	047	090	133	176	219	262	305	348	391	434	477	520	563	606	649	692	735	778	821	865
005	048	091	134	177	220	263	306	349	392	435	478	521	564	607	650	693	736	779	822	866
006	049	092	135	178	221	264	307	350	393	436	479	522	565	608	651	694	737	780	823	867
007	050	093	136	179	222	265	308	351	394	437	480	523	566	609	652	695	738	781	824	868
008	051	094	137	180	223	266	309	352	395	438	481	524	567	610	653	696	739	782	825	869
009	052	095	138	181	224	267	310	353	396	439	482	525	568	611	654	697	740	783	826	870
010	053	096	139	182	225	268	311	354	387	440	483	526	569	612	655	698	741	784	827	871
011	054	097	140	183	226	269	312	355	398	441	484	527	570	613	656	699	742	785	828	872
012	055	098	141	184	227	270	313	356	399	442	485	528	571	614	657	700	743	786	829	873
013	056	099	142	185	228	271	314	357	400	443	486	529	572	615	658	701	744	787	831	874
014	057	100	143	186	229	272	315	358	401	444	487	530	573	616	659	702	745	788	832	875
015	058	101	144	187	230	273	316	359	402	445	488	531	574	617	660	703	746	789	833	876
016	059	102	145	188	231	274	317	360	403	446	489	532	575	618	661	704	747	790	834	877
017	060	103	146	189	232	275	318	361	404	447	490	533	576	619	662	705	748	791	835	878
018	061	104	147	190	233	276	319	362	405	448	491	534	577	620	663	706	749	792	836	879
019	062	105	148	191	234	277	320	363	406	449	492	535	578	621	664	707	750	793	837	880
020	063	106	149	192	235	278	321	364	407	450	493	536	579	622	665	708	751	794	838	881
021	064	107	150	193	236	279	322	365	408	451	494	537	580	623	666	709	752	795	839	882
022	065	108	151	194	237	280	323	366	409	452	495	538	581	624	667	710	753	796	840	883
023	066	109	152	195	238	281	324	367	410	453	496	539	582	625	868	711	754	797	841	884
024	067	110	153	196	239	282	325	368	411	454	497	540	583	626	669	712	755	798	842	885
025	068	111	154	197	240	283	326	369	412	455	498	541	584	627	670	713	756	799	843	886
026	069	112	155	198	241	284	327	370	413	456	499	542	585	628	671	714	757	800	844	887
027	070	113	156	199	242	285	328	371	414	457	500	543	586	629	672	715	758	801	845	888
028	071	114	157	200	243	286	329	372	415	458	501	544	587	630	673	716	759	802	846	889
029	072	115	158	201	244	287	330	373	416	459	502	545	588	631	674	717	760	803	847	890
030	073	116	159	202	245	288	331	374	417	460	503	546	589	632	675	718	761	804	848	891
031	074	117	160	203	246	289	332	375	418	461	504	547	590	633	676	719	762	805	849	892
032	075	118	161	204	247	290	333	376	419	462	505	548	591	634	677	720	763	806	850	893
033	076	119	162	205	248	291	334	377	420	463	506	549	592	635	678	721	764	807	851	894
034	077	120	163	206	249	292	335	378	421	464	507	550	593	636	679	722	765	808	852	895
035	078	121	164	207	250	293	336	379	422	465	508	551	594	637	680	723	766	809	853	896
036	079	122	165	208	251	294	337	380	423	466	509	552	595	638	681	724	767	810	854	897
037	080	123	166	209	252	295	338	381	424	467	510	553	596	639	682	725	768	811	855	898
038	081	124	167	210	253	296	339	382	425	468	511	554	597	640	683	726	769	812	856	899
039	082	125	168	211	254	297	340	383	426	469	512	555	598	641	684	727	770	813	857	900
040	083	126	169	212	255	298	341	384	427	470	513	556	599	642	685	728	771	814	858	901
041	084	127	170	213	256	299	342	385	428	471	514	557	600	643	686	729	772	815	859	902
042	085	128	171	214	257	300	343	386	429	472	515	558	601	644	687	730	773	816	860	903
043	086	129	172	215	258	301	344	387	430	473	516	559	602	645	688	731	774	817	861	904

Recycled Paper

HOMEPC

MORE FREE INFO! If you want more information on the following products, please check the boxes below:

950 ❑ Personal Computers	957 ❑ On-Line Services
951 ❑ Printers/Scanners	958 ❑ Accessories
952 ❑ Monitors	959 ❑ Utilities
953 ❑ Multimedia Boards/Speakers	960 ❑ Mail Order Companies
954 ❑ Entertainment Software	961 ❑ Reference Software
955 ❑ Educational Software	962 ❑ Travel Software
956 ❑ Personal Productivity Software	

1 Do you have children living at home?
01 ❑ Age 3-12
02 ❑ Age 12 +

2 Are you
03 ❑ Married?
04 ❑ Single?

3 Do you own
05 ❑ Mac?
06 ❑ IBM compatible?
07 ❑ Other?

4 CD-Rom Do you...
08 ❑ Own?
09 ❑ Plan to buy in the next 12 months ?

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Fax _____

For faster response, visit our Reader Service Card on the Internet:
http://techweb.cmp.com/hpc/rs/default.html

999. ❑ Please send me one year (12 issues) of HOMEPC MAGAZINE for $12.97 Offer valid in U. S. only. 15HHRC 1

FREE INFO PRODUCT

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 9335 BUFFALO, NY

POSTAGE WILL BE PAID BY ADDRESSEE

HOMEPC

READER SERVICE MANAGEMENT DEPT
PO BOX 1657
BUFFALO NY 14205-9959

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 9335 BUFFALO, NY

POSTAGE WILL BE PAID BY ADDRESSEE

HOMEPC

READER SERVICE MANAGEMENT DEPT
PO BOX 1657
BUFFALO NY 14205-9959

FUN...FANTASTIC...FREE...INFORMATION!!

ISSUE DATE - JULY 1996 EXPIRATION DATE - OCTOBER 31, 1996

Circle the numbers on the card that correspond to the ads or articles you'd like more information about.

001	044	087	130	173	216	259	302	345	388	431	474	517	560	603	646	689	732	775	818	862
002	045	088	131	174	217	260	303	346	389	432	475	518	561	604	647	690	733	776	819	863
003	046	089	132	175	218	261	304	347	390	433	476	519	562	605	648	691	734	777	820	864
004	047	090	133	176	219	262	305	348	391	434	477	520	563	606	649	692	735	778	821	865
005	048	091	134	177	220	263	306	349	392	435	478	521	564	607	650	693	736	779	822	866
006	049	092	135	178	221	264	307	350	393	436	479	522	565	608	651	694	737	780	823	887
007	050	093	136	179	222	265	308	351	394	437	480	523	566	609	652	695	738	781	824	868
008	051	094	137	180	223	266	309	352	395	438	481	524	567	610	653	896	739	782	825	869
009	052	095	138	181	224	267	310	353	396	439	482	525	568	611	654	697	740	783	826	870
010	053	096	139	182	225	268	311	354	387	440	483	526	569	612	655	698	741	784	827	871
011	054	097	140	183	226	269	312	355	398	441	484	527	570	813	656	699	742	785	828	872
012	055	098	141	184	227	270	313	356	399	442	485	528	571	614	657	700	743	786	829	873
013	056	099	142	185	228	271	314	357	400	443	486	529	572	615	658	701	744	787	831	874
014	057	100	143	186	229	272	315	358	401	444	487	530	573	616	659	702	745	788	832	875
015	058	101	144	187	230	273	316	359	402	445	488	531	574	617	660	703	746	789	833	876
016	059	102	145	188	231	274	317	360	403	446	489	532	575	618	661	704	747	790	834	877
017	060	103	146	189	232	275	318	361	404	447	490	533	576	619	662	705	748	791	835	878
018	061	104	147	190	233	276	319	362	405	448	491	534	577	620	863	706	749	792	836	879
019	062	105	148	191	234	277	320	363	408	449	492	535	578	621	664	707	750	793	837	880
020	063	106	149	192	235	278	321	364	407	450	493	536	579	622	665	708	751	794	838	881
021	064	107	150	193	236	279	322	365	408	451	494	537	580	623	666	709	752	795	839	882
022	065	108	151	194	237	280	323	366	409	452	495	538	581	624	667	710	753	796	840	883
023	066	109	152	195	238	281	324	367	410	453	496	539	582	625	668	711	754	797	841	884
024	067	110	153	196	239	282	325	368	411	454	497	540	583	626	669	712	755	798	842	885
025	068	111	154	197	240	283	326	369	412	455	498	541	584	627	670	713	756	799	843	886
026	069	112	155	198	241	284	327	370	413	456	499	542	585	628	671	714	757	800	844	887
027	070	113	156	199	242	285	328	371	414	457	500	543	586	629	672	715	758	801	845	888
028	071	114	157	200	243	286	329	372	415	458	501	544	587	630	673	716	759	802	846	889
029	072	115	158	201	244	287	330	373	416	459	502	545	588	631	674	717	760	803	847	890
030	073	116	159	202	245	288	331	374	417	460	503	546	589	632	675	718	761	804	848	891
031	074	117	160	203	246	289	332	375	418	461	504	547	590	633	676	719	762	805	849	892
032	075	118	161	204	247	290	333	376	419	462	505	548	591	634	677	720	763	806	850	893
033	076	119	162	205	248	291	334	377	420	463	506	549	592	635	678	721	764	807	851	894
034	077	120	163	206	249	292	335	378	421	464	507	550	593	636	679	722	765	808	852	895
035	078	121	164	207	250	293	336	379	422	465	508	551	594	637	680	723	766	809	853	896
036	079	122	165	208	251	294	337	380	423	466	509	552	595	638	681	724	767	810	854	897
037	080	123	166	209	252	295	338	381	424	467	510	553	596	639	682	725	768	811	855	898
038	081	124	167	210	253	296	339	382	425	468	511	554	597	640	683	728	769	812	856	899
039	082	125	188	211	254	297	340	383	426	469	512	555	598	641	684	727	770	813	857	900
040	083	126	169	212	255	298	341	384	427	470	513	556	599	642	685	728	771	814	858	901
041	084	127	170	213	256	299	342	385	428	471	514	557	600	643	686	729	772	815	859	902
042	085	128	171	214	257	300	343	386	429	472	515	558	601	644	687	730	773	816	880	903
043	086	129	172	215	258	301	344	387	430	473	516	559	602	645	688	731	774	817	861	904

HOMEPC

MORE FREE INFO! If you want more information on the following products, please check the boxes below:

950 ❑ Personal Computers	957 ❑ On-Line Services
951 ❑ Printers/Scanners	958 ❑ Accessories
952 ❑ Monitors	959 ❑ Utilities
953 ❑ Multimedia Boards/Speakers	960 ❑ Mail Order Companies
954 ❑ Entertainment Software	961 ❑ Reference Software
955 ❑ Educational Software	962 ❑ Travel Software
956 ❑ Personal Productivity Software	

1 Do you have children living at home?
01 ❑ Age 3-12
02 ❑ Age 12 +

2 Are you
03 ❑ Married?
04 ❑ Single?

3 Do you own
05 ❑ Mac?
06 ❑ IBM compatible?
07 ❑ Other?

4 CD-Rom Do you...
08 ❑ Own?
09 ❑ Plan to buy in the next 12 months ?

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Fax _____

For faster response, visit our Reader Service Card on the Internet:
http://techweb.cmp.com/hpc/rs/default.html

999. ❑ **Please send me one year (12 issues) of HOMEPC MAGAZINE for $12.97 Offer valid in U. S. only.**

15HHRC 1

Recycled Paper

Medical Billing

ELECTRONIC CLAIMS PROCESSING

"One of the Hottest & Most Profitable Businesses of the 90's"
–Entrepreneur Start-up Business Guide

A New High Income, Home-based Business... Processing Health Claims!

National Claims Service offers the most complete package available, including a two day training seminar, video training courses, software and a professional start-up package. Previous computer or billing experience are not required. ***Electronic Claims Processing*** has excellent income potential, working part or full time. Capital required: **$3,495 to $7,995**.

For our Free Information Packet, Call us Toll Free

1-800-207-3711 ext. 210

CIRCLE READER SERVICE NUMBER 300

WINDOWS 95
WINDOWS 3.X

SMART HOME MANAGER™

THE BEST PERSONAL FINANCE & HOME MANAGEMENT SOFTWARE

Over 100 Features including:
- ✓ Expense/Income Tracking
- ✓ Check Printing & Bank Reconciliation
- ✓ Investment & Retirement Planning
- ✓ Medical Records Management
- ✓ Home Maintenance/Auto Repair
- ✓ Exercise Log, Recipe Book, Daily Journal
- ✓ Scheduling Appointments/To Do's
- ✓ Over 150 Easy To Use Reports
- ✓ Separate Financial Accounting For Each Family Member - Even Kids!

LIMITED TIME OFFER!
~~$59.95~~
$29.95 +tax
Offer Code: HPCSHM030
(Plus shipping & handling.)

• Visit Our Homepage At **http://www.surado.com**
• 30 Day Money Back Guarantee!

Software Requirements:
- 100% IBM Compatible, 386 or higher
- Windows 3.X or Windows 95
- 6Mb Min Ram, 8Mb Recommended
- 16 Mb Free Hard Disk Space
- VGA or Super VGA Monitor

ORDER TODAY!
1-800-478-7236
Mail: Surado Solutions, Inc.
1960 Chicago Ave, Ste D9
Riverside, CA 92507
CA Residents Add Sales Tax

CIRCLE READER SERVICE NUMBER 301

Make Big Money With First Names!

Join the multi-billion dollar personalized gift industry. With Creative Names you can now enjoy an impressive income by using your computer to create beautiful "Names" certificates in seconds – that sell for $5.00 to $7.00 and cost 23¢ – a mark-up of 2,500%!

- Quick return on investment
- No royalties – Profits are 100% yours
- Can be done part-time or full-time
- Ideal for retail, mail order, fundraising, corporate events and much more!
- All cash business

Call or write for information and a free certificate!

800-842-5580 Ext. G-356

CASI Dept. G-356
914-376-7400 6 Executive Plaza
Fax 914-376-7580 Yonkers, NY 10701

MAKE MONEY At Home Personalizing Children's Books.

Celebrating Over 16 Years Experience

- Exclusive Safety-Bind®
- On-line dealer support
- Complete marketing manual
- Mail order, & fund raising programs
- 90 titles including ethnic & religious themes
- Personalize books from your home in 1 minute

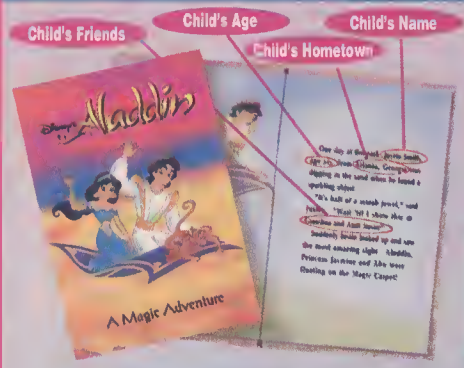
Copyright © Hefty Publishing Company

HEFTY PUBLISHING COMPANY®
Founder of Create-A-Book® & Presto Print Books®

1-800-732-3009

MAKE MONEY WITH A COMPUTER

Start A Business At Home Creating Personalized Books



©Walt Disney ™&©Mattel,Inc ™&©Saban ©Warner Bros. ™&©NFL ©Where's Waldo? ©Best Books

FREE Information
1 800 275 7770

Call These Countries
Austria 43 27 327 2073
Scandinavia 46370 18995
U.K. 44 956 702 789
Australia 02 337 2271
Spain 34 1367 3211

- Walt Disney, Barbie,™ Warner Bros., NFL,™ Power Rangers,™ Where's Waldo?
- *Inc.* 500 America's Fastest-Growing Private Companies ranks Best at 167
- High Profit Margin, Low Start-Up
- Books in Foreign Languages
- Books, Business Cards, & Stationery
- Religious and Ethnic Themes
- Over 30 Titles Available

Inc. 500 Fastest-Growing Private Companies Best Ranks 167 in America

BEST PERSONALIZED BOOKS®

BEST PLAZA, 4201 AIRBORN DRIVE, DALLAS, TEXAS 75248 U.S.A.
LOCAL AND INTERNATIONAL TEL: 214 250 1000 • FAX: 214 930 1010

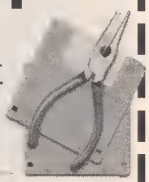
BE A MEDICAL TRANSCRIPTIONIST!

WORK AT HOME

Home study course. You could make $30,000 or *more*. Work in doctors' offices or at home.
FREE LITERATURE: 800-223-4542

Name _____ Age ____
Address _____ Phone (____) _____
City/State _____ Zip _____
School of Medical Transcription, Dept. YYH275
PCOI, 6065 Roswell Road, Atlanta, Georgia 30328

Be a PC repair expert!

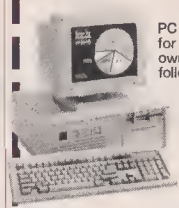


Home study. Learn PC repairs, troubleshooting, installation, and servicing. Open a profitable business; be a more valuable employee. **Free literature.**

Call 800-223-4542

Name _____ Age ____
Address _____ Phone (____) _____
City/State _____ Zip _____
The School of PC Repair, Dept. JJH275, PCDI
6065 Roswell Road, Atlanta, Georgia 30328

LEARN COMPUTERS!



Professional-level home study. Use a PC like an expert—for your career and for personal convenience. Learn at your own pace. Exciting, fun, and easy to follow. **For your free career literature, send or call 24 hours a day.**

800-223-4542

Choose one: ❑ Basic PC Training ❑ Advanced PC Training
Name _____ Age ____
Address _____
City/State _____
Phone (____) _____ Zip _____
School Of Computer Training, Dept. XXH275, PCOI
6065 Roswell Road, Atlanta, Georgia 30328

40+ Hottest Businesses You Can Run From Your Home With A Computer!

Special FREE Report Now Available—*The report consists of 3 hours of cassette tapes plus complete detailed information on the 40+ best home businesses that a couple or individual can run from their home with a computer.*

This is the seventh yearly report just completed by Computer Business Services, Inc. (CBSI), the world's largest resource for in-home computer business equipment and systems. This special report will tell you • What home businesses are working—where • What equipment you will need—and where to get it • What you will do • Which businesses you can start part time and still retain your present job • What your costs will be • Where you can get financing • Where to get training you will need • How to market yourself, your services and products when you work from your home • What your potential is for growth.

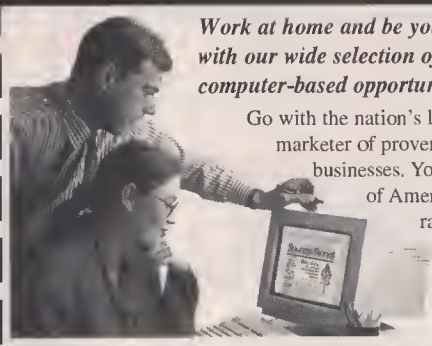
Call: 1-800-343-8014, ext. 3201

Get your personal FREE REPORT. Don't start or expand your business until you have seen this new report.

Or Write:

Computer Business Services, Inc., CBSI Plaza, Ste. 3201, Sheridan, IN 46069

HOT HOME-BASED BUSINESSES!



Work at home and be your own boss with our wide selection of high-income, computer-based opportunities.

Go with the nation's leading marketer of proven home-based businesses. You can own several of America's highest rated home-based businesses for less than most people pay for just one.

- **College Financial Aid**
- **Employment Sourcing**
- **Desktop Publishing**
- **Information Broker**
- **Mortgage Acceleration**
- **Utility Bill Auditing**
- **Home Inspection**
- **Medical Billing**
- **Travel Agent**

...and more!

Excellent income potential. Start part time and retain the security of your present job. Capital required: **from $995.**

Call 24 hours a day for a FREE Audio Tape & Information Packet.

NCBS
National Computerized Business Services Inc.

1-800-616-6227 ext. 210

CIRCLE READER SERVICE NUMBER 302

DON'T GO NEAR THE WATER *without* SAIL AWAY!

Sailing can be one of the most enjoyable sports — IF you know what you're doing. THE SAIL AWAY! CD-ROM comes complete with videos and animation. Includes complete sections on:

- PARTS OF A BOAT
- SMALL BOAT HANDLING
- KNOTS AND CORDAGE
- WEATHER
- PILOTING
- RULES OF THE ROAD
- MEDIA SHOWROOM
- GLOSSARY OF SAILING TERMS

A great learning tool for young and old! This interactive program teaches all aspects of learning how to sail a 14ft daysailor.

Only $39.95 plus $5 s&h (windows version)

DESIGNED FOR THE HEARING IMPAIRED

available from:
SCANROM PUBLICATIONS
P.O. BOX 72, Cedarhurst, N.Y. 11516

call toll free
1-800-269-2237
FAX 1-516-295-2240

E-MAIL:
73760,1005@COMPUSERVE.COM

CIRCLE READER SERVICE NUMBER 303

We've Got It.

The best selection of high-quality software available. Choose from business, children, games, education, desktop publishing and more. We have the latest and greatest shareware. Try one of our collections and you will get the best selection, and the highest quality at the lowest cost. . .even Windows 95 collections. We've got it!

1-800-470-CLUB

SOFTWARE OF THE MONTH CLUB®

CIRCLE READER SERVICE NUMBER 304

Consolidated CD ROM

CD ROM Software for the Whole Family

New Titles Weekly

- *Business*
- *Education*
- *Clip Art*
- *Travel*
- *Games*
- *Literature*
- *Music*
- *Reference*
- *Religion*
- *Shareware*

Call Toll-Free to Order or for a free update

1-800-8-CD-ROMS

For Multimedia & Memory Upgrades

VISA Unconditionally Guaranteed MasterCard
Dealer Inquiries Welcome

WE'VE MOVED TO A LARGER LOCATION

102 Greenwood Ave. • Wyncote, PA 19095 • USA
(215) 572-9831 • Fax (215) 572-9832
(WWW) http://www.consldcdrom.com
(Email) cdrom@consldcdrom.com

CIRCLE READER SERVICE NUMBER 305

OWN YOUR OWN TRAVEL BUSINESS IN YOUR OWN HOME

- No experience needed
- Complete program of training and on-going support
- Earn travel perks for yourself
- Low franchise fee

INHOUSE TRAVEL NETWORK

America's premier network of independently owned travel companies

800-863-1606

CIRCLE READER SERVICE NUMBER 306

PC OR MAC FORMATS • REQUEST OUR FREE CATALOG

SIR SOFTWARE

Call for best pricing on your favorite software titles!

8820 Main Street • Suite 104
Frisco, Texas 75034

We accept Visa, MC, Amex, Discover, C.O.D.s Money Orders & Checks.
Monday-Friday 9:00am-6:00pm
Saturday 10:00am-4:00pm
Fax Orders (214) 377-3369

VISIT US ON THE INTERNET! //www.sir-software.com/

Featured Favorites!

GAMES

RAYMAN

Accumulate & combine your skills as you advance, helping Rayman defeat his bizarre enemies, rescue his friends & restore peace & harmony to the world!

39.99

Ubi Soft

Kiyeko & the Lost Night $29.99
Red Hot Soccer w/Alexi Lalas $34.99

Purchase $75 or more of software & receive one of your choice free:
Crystal Caliburn Pinball • Adventures of Nikko • Mayo Health Clinic 95

- Business
- Childrens
- Education
- Games
- Graphics
- Reference
- Religion
- Shareware

Call for Sir's complete catalog of the hottest mature audience titles.

1-800-347-7754

If you see an advertised price that is lower than our price, we will do our best to meet or beat that price.

Special offers not valid w/any other Sir Software advertised specials. Returns must be in resalable condition w/all documentation. Must be 18+ to order Mature Audience Titles. U.S. Shipping Charges per order: UPS: $5-Stnd., $7-3day, $10-2day, $18-Overnite.

CIRCLE READER SERVICE NUMBER 307

Can Your Desktop Face The Music?

The Edirol Buyer's Guide has everything you need to unleash the musical genius in you and your PC or Mac.

Transform your computer into a music studio, complete with sound cards, speaker systems, keyboards, MIDI synthesizers, and the latest software for helping you create and print your own music.

Discover music solutions for school and home education. Plus, choose from a library of thousands of MIDI songs on disk.

And it's yours for less than a song – it's FREE!

New Software Releases.
Full Upgrade Kits Available.
Competitive Pricing.
Direct Shipping & 30 Day Money Back Guarantee.

FOR FREE BUYER'S GUIDE CALL:
1-800-380-2580
http://www.edirol.com

EDIROL Edirol Corp.
1201 Fourth Ave. South, 3rd Floor, Seattle, WA 98134

CIRCLE READER SERVICE NUMBER 308

Keys To Success

Earn your B.S. or M.S. degree in Computer Science—without leaving home and without spending thousands of dollars.

- All Courses Home Study
- Approved for tuition reimbursement by leading corporations
- C++, Using Windows, and Ada courses available
- CareerPath training in computer programming available

For free information call 1-800-767-AICS

AMERICAN INSTITUTE OF COMPUTER SCIENCES
ACCREDITED MEMBER
World Association of Universities and Colleges

Off Campus Degree Programs

Earn your B.S., M.S., or Ph.D., in Computer Science or Business Administration through Home Study.

- Credit For Life Experience Awarded
- No on Campus requirement
- Study at your own pace
- Affordable Tuition Plans Available
- Licensed and Accredited

Columbia Southern University

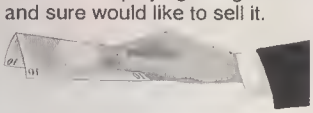
Call For Free Catalogue
1-800-977-8449 x46

CIRCLE READER SERVICE NUMBER 309

CD-ROM EXCHANGE™

THE PREMIERE CATALOG FOR CD-ROM OWNERS LOOKING TO BUY, SELL, AND TRADE USED CD-ROM DISKS. INCREDIBLE SAVINGS OVER RETAIL!

I've finished playing this game and sure would like to sell it.



With all this new software, where can I find older titles?

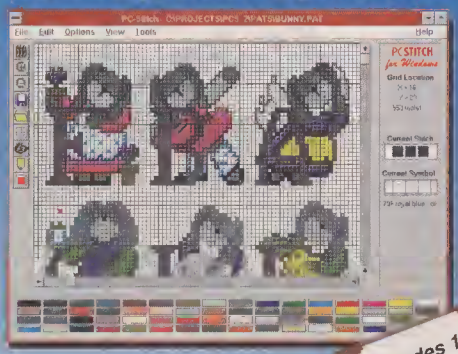
Used Hardware Even!

CALL OR WRITE

CD-ROM EXCHANGE
P.O. BOX 218
CARROLLTON, GA 30117-0218
(770) 834-4776

CIRCLE READER SERVICE NUMBER 310

Design Your Own Cross Stitch Patterns!



Includes 100 Pattern Pieces!

Some features include:

- Full, half, quarter and back/outline stitches
- Pattern sizes up to 500 x 500 stitches
- As many as 64 different colors in any pattern
- Build palettes from any of the 390 DMC, J&P, or Anchor thread colors
- Import any BMP, PCX, TIF, or GIF graphic file into your patterns
- Drawing tools include rotate, copy, move, paint, center & mirror mode
- Color or black & white printouts with symbols representing thread colors
- 100 *"Pattern Pieces"* included! Stitch these small completed patterns as is or place them into your own patterns like clipart.

PCSTITCH *for Windows*

The Software for Cross Stitch Pattern Design

Order Today for $79.95!

Money Back Guarantee!

3.0 New Version

M&R Technologies, Inc.
PO Box 9403, Wright Brothers Branch
Dayton, Ohio 45409
(800) 800-8517 FAX: (513) 294-1989

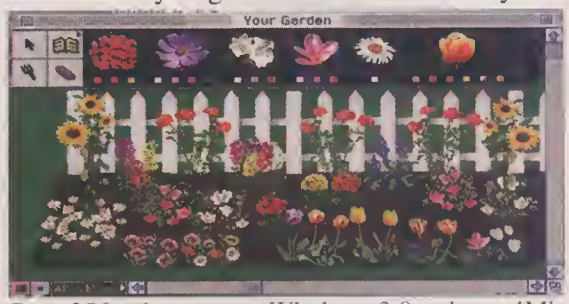
To order send $79.95 to the address above or call us toll free for a credit card order. System requires Microsoft Windows 3.1 or later, 2 Meg of free memory, 5 Meg of hard disk space and a mouse or other pointing device. International calls (513) 294-1983

CIRCLE READER SERVICE NUMBER 311

Improve Your Flower Garden with *FLOWERscape*

- Internationally acclaimed & eliminates guesswork!
- Recommends suitable plants for your zone
- Colorful photographs help select your year-round garden
- Actually view its growth in any month!
- User Friendly & great for the entire family

$49



Req: 256 color system; Windows 3.0 or later; 4Mb Ram; 10Mb HD; 3.5" high density floppy drirve.

Call...1-(800) 800-1111

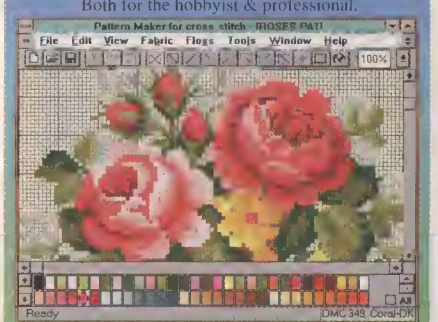
GUARANTEED & Next Day Delivery

CIRCLE READER SERVICE NUMBER 312

Pattern Maker *for cross stitch*

a Windows™ program

Create your own cross-stitch patterns on a PC!
Both for the hobbyist & professional.



Features Include:

- 150 colors per pattern
- Pattern sizes up to 999x999
- Full, half, quarter, back stitches and French knots
- Display/print pattern as stitches, symhols, or solids
- Supports multiple pattern views simultaneously
- Stitch usage summary
- Graphic image importing (BMP, PCX, GIF, WMF)
- User-selectable fabric color and grid style
- DMC, Anchor, J&P Coats floss lists provided
- Full editing capability (undo, cut, copy, paste, move, flip, rotate, flood fill, fill back stitched area)
- Print preview and color printing
- Online help and User's Manual

Professional Version - Only $119.95

Standard Version also available for $59.95 - call for details
Visa/MC, check, and money orders accepted
Please add $4.95 for shipping & handling. Indiana residents add 5% sales tax.

(800)768-6257 (U.S.A. Only) (317)595-0565
HobbyWare 9686 Spruce Lane Fishers, IN 46038

CIRCLE READER SERVICE NUMBER 313

Magic Touch®

Turns Your Monitor Into a Touch-Interactive Device

It's EASY, POWERFUL, FUN AND AFFORDABLE

It fits standard 13" to 17" monitor, runs ANY program for Windows, Macintosh or Amiga. From clicking the icon to freehand drawing, it all can be done by the touch of a finger or stylus. It protects you from the static and radiation too.

* Built-in touch monitors available.

KEYTEC, INC.

Call Toll-Free 1-800-624-4289
or Fax 214-234-8542
email: sunmagic89@aol.com

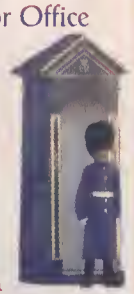
CIRCLE READER SERVICE NUMBER 314

Bytes of Britain™

Screen Savers for Windows®

Medieval Castles, Quaint Cottages, Pubs, Shakespeare, London, Oxford, many more!

- Great Gift for Home or Office
- Easy to install, Fun to use
- Entertaining, informative slide show
- Ideal for desktop publishing
- 14 beautiful collections



Free Gift From Britain with each order!
(limited time only)

Campbell-Jones Development
PO Box 701673
Dallas, TX 75370-1673
Fax: (214) 306.5776
Other inquiries: (214)662.0338
CompuServe: 74764,1256

Bonus Offer
Buy 2 Collections
Get a 3rd *Free!*
$12.95*
*each plus S/H/Tax

Free colour brochure
***Toll Free!* 1•800•840•BRIT**

CIRCLE READER SERVICE NUMBER 315

WIN LOTTO!

GAIL HOWARD'S
SMART LUCK® LOTTERY SYSTEMS

Won 59 Lotto Jackpots Worth $97.4 Million Dollars!

ADVANTAGE PLUS™

• COMPLETE drawing results for ALL 65 pick 5, 6, & 7 # Lotto games FREE • Over 50 scientific charts & reports to zero in on winners • Automatic SMART PICKS™ selects best Lotto #s instantly • Test past performance of SMART PICKS™ with one key stroke! • Detailed 62 page manual shows how to identify winning patterns • A $295.00 value. Your introductory price for a limited time only: $79.95 + $3 S/H.

COMPUTER WHEEL™

Has 252 Lotto Wheeling Systems with specific win guarantees. All flawless. Find one system that fails its win guarantee, and you get DOUBLE your money back! $39.50 + $3 S/H

ADVANTAGE PLUS™ *and* COMPUTER WHEEL™

SAVE $20! Buy BOTH for only $99.95 + $3 S/H
(IBM/Comp. 5.25 or 3.5)

Use this system and you will trash all your other lottery software!

1-800-876-4245

SMART LUCK® SOFTWARE

Dept. E-11, P.O. Box 1519
White Plains, NY 10602
1-800-876-GAIL (4245) or 914-761-2333

CIRCLE READER SERVICE NUMBER 316

Your Data & Photos on CD-ROM

Convert your data & photographs to CD-ROM today!

With our services you can store up to 650 MB on a single CD.

- Photos on a CD come with FREE cataloging software as low as $25
- Data conversion to CD as low as 10¢ a MB
- Send your favorite photo or graphic and we'll put it on a single image transfer sheet that you can iron on a t-shirt, sweatshirt, etc.

Digital Memories™

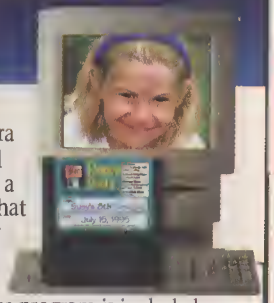
1192 E. Draper Pkwy.
Suite 513
Draper, Utah 84020
801-576-0834
Fax 801-572-5637
CALL FOR FREE INFORMATION PACKET: 800-459-7422
e-mail: webber@digitalmem.com
WWW: http://digitalmem.com/~webber

New Offer Order photos scanned to CD and get an iron-on transfer FREE ($10 value). Offer expires 9/30/96.

WE ACCEPT CHECKS, MONEY ORDERS, VISA, MC, & AMEX

CIRCLE READER SERVICE NUMBER 317

See Your Pictures On Your PC Or Mac!



- Use any 35mm camera
- Get beautiful prints... plus a floppy disk that fits into your computer's 3.5" drive
- An easy-to-use program is included on the disk with your pictures
- Perfect for Internet Web pages
- Print photos on any laser printer
- Low cost... just $5/24; $7/36 exp with any processing order.

FREE Information & Mailers

(800) 327-1776

FAX (954) 922-3008
e-mail: dalelabs@aol.com

DALE LABORATORIES
2960 Simms Street
Hollywood, Florida
33020-1579

CIRCLE READER SERVICE NUMBER 318

NEW HYBRID CD-ROM MAC & WINDOWS COMPATIBLE NEW PRODUCT RELEASE

Casualty Kid ...on the road to FIRST AID

BE COOL IN A CRISIS

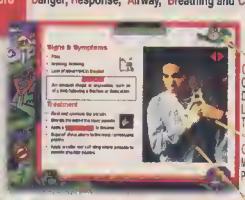
Introducing CAPTAIN DRABC™

THE 1ST FIRST AID CD-ROM

An extensive reference guide • A fun educational game
Print referance information • Easy to install and use
Ideal for SCHOOL PROJECTS • Questions & Answers
Perent proof CD-ROM

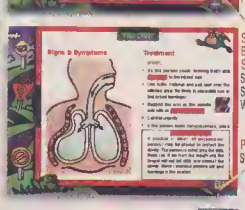
Meet Captain DRABC™, the cartoon Super Hero who will teach you the core First Aid procedures of Danger, Response, Airway, Breathing and Circulation.

HEY KIDS VISIT HAZARD CITY & DISCOVER THE MANY LOCATIONS



CLICK ON CAPTAIN DRABC FOR LIFE SAVING TECHNIQUES

CLICK FOR MORE PHOTOS



STEP BY STEP SLIDE SHOWS WITH VOICE OVER

PRINT SYMBOL

PLACE YOUR ADVANCE ORDERS NOW

FOR A DISTRIBUTOR NEAREST YOU CALL 1-800-924-4747

IRIS LTD.

HYBRID CD-ROM
INTERACTIVE MULTI MEDIA FOR CHILDREN AND ADULTS

$39.95

MONEY BACK GUARANTEE

FIRST AID KNOWLEDGE IS THE FIRST STEP TO SAVING A LIFE

CIRCLE READER SERVICE NUMBER 319

COMPUTER CHECKS

BUY DESIGNER DIRECT FOR LOWEST PRICES!

Laser/Inkjet

Continuous Checks and Check Savers Also Available.

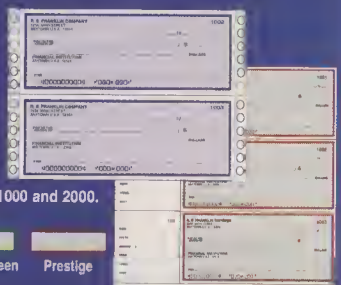
As Low as $29.95

CALL: 1-800-239-4087

FAX ORDERS: 1-800-774-1118
(PLEASE CALL FOR A FAX ORDER FORM)
MC, VISA & AMERICAN EXPRESS ACCEPTED

Internet: http://www.hotnew.com/checks/
E-Mail: info@chacks.hotnew.com

- ✔ QUICKEN
- ✔ SIMPLY MONEY
- ✔ MICROSOFT MONEY
- ✔ MANY MORE



Laser and Continuous Feed Checks available in:
- Business Size
- Business Size with Voucher
- Wallet Size

Available in Quantities of 250, 500, 1000 and 2000.
Choose From 4 Stylish Colors!

Classic Blue Tan Classic Green Prestige

Designer CHECKS
P.O. Box 13387 • Birmingham • AL 35202

PO7904D6 • HOME P.C.

CIRCLE READER SERVICE NUMBER 320

Best Personalized Books

For a small investment, you can start your own business at home making personalized children's books. These books practically sell themselves when the child is the star of the story along with Disney's Lion King and Snow White, Barbie, Power Rangers, Bugs Bunny and the Looney Tunes, or the NFL Teams! Plus, reinforce family values and improve a child's self-esteem with books from the religious and ethnic line. This is just part of Best Personalized Books' seven lines of books. Also, don't forget to ask about other personalized products including business cards and stationery. Call for **FREE** information.

1-800-275-7770

Campbell-Jones Development

"Enjoy the beautiful scenery of Britain ...on your computer!" (and get a free gift from Britain)

Each of the 14 Bytes of Britain screen saver image collections bring a special segment of the beauty of the British countryside direct to your computer screen. Whether it's the *quaint thatched cottages of Hampshire, the charm of the golden-stoned Cotswolds, the splendor of the medieval castles, the history and bustle of London or the whimsey of the gargoyles of Oxford,* we have the collections you're sure to cherish. Call for your **FREE** color brochure.

Bytes of Britain

1-800-840-BRIT

CD-ROM Exchange

CD-ROM Exchange is the premiere catalog for cd-rom owners looking to buy, sell or trade used cd-rom disks. The catalog offers a large selection of used cd-roms, regular software on 3.5 and 5.25 inch disks, hardware and more. The catalog supports all computing formats (IBM PC, MAC, etc.). The phrase "low prices" does not quite capture the essence of this one-of-a-kind publication. Check it out!

CD-ROM EXCHANGE

704-437-9942

Consolidated CD ROM

DISCOUNT CD ROM SOFTWARE

Consolidated CD ROM is your direct source for all of the best and most wanted CD software available. We have a full range of titles to educate and entertain the entire family. Consolidated CD ROM, Inc., is a worldwide supplier of CD ROM software and memory upgrade parts. Special Offer: My Guitar Buddy, a learning program for beginner and intermediate players. Learn chords, notes, riffs, songs, how to tune a guitar, and more. Runs on MAC or Windows for only $24.95.

Consolidated CD ROM

1-800-8-CD-ROMS

Creative Amusement Services, Inc.

"World Leader In Personalized Gifts Since 1977"

With a Creative Names System, you can print any name on a variety of custom art backgrounds that show mountains, icebergs, tropical scenes, sports themes and more. Printed with the name is the place of origin, meaning and a list of flattering personality traits. The backgrounds can be inserted into wood, paper and lucite frames or made into mugs, keychains, ceramic plates, buttons and more. You can also attach a photo to the art background or create greeting cards, poems or motivational quotations.

CASI

1-800-842-5580

Designer Computer Checks

As Low As $29.95

Order direct for great savings on business and personal size computer checks. Our checks are compatible with laser, inkjet or continuous feed printers. Whether you use Quicken, MS Money, or another accounting software we can print your checks and guarantee you'll be 100% satisfied or your money back.

Internet: http://www.hotnew.com/checks
Email: info@checks.hotnew.com

Designer CHECKS

1-800-239-4087

Hefty Publishing Company

Make Money at Home!

Hefty Publishing Company pioneered the concept of Personalized Children's Books on a home computer way back in 1980. We now offer over 80 titles and seven exciting libraries of books including Create-A-Book, Grace Christian and Disney! Our hand-made books are a staple-free, child-safe product and our exclusive personalized "Fun Sticker" books allow high-volume multiple book sales. To receive a Comprehensive information package that includes sample books and software, please call:

Hefty Publishing Company®

1-800-732-3009

National Claims Service

Medical Billing

One of the hottest, fastest growing and most dynamic young businesses in America today. Industry leader *National Claims Service* offers the most complete package available:

**Training by industry professionals*
**Tested + proven marketing techniques + materials*
**Software that allows you to work smarter not harder*
**Support when you need it*

Excellent income potential - part or full time. Investment from $3495 - $7995.

National Claims Service

1-800-697-1569 ext 210

SMART LUCK® Software

Winning Lotto Systems

The jackpot winning systems created by America's original lottery expert, Gail Howard, can help you beat the odds and cash in winning tickets. Her unprecedented success in creating dozens of lottery millionaires has led to hundreds of appearances on radio and TV, including *The Today Show* and *Good Morning America*. Gail Howard's Smart Luck® Software is fast, flexible, easy to use, professional, superior to any we have seen. Unquestionably the Rolls Royce of lottery software.

1-800-876-4245

the cyber ace

YOUR ON-LINE TOUR GUIDE

BY JOHN ECKHOUSE

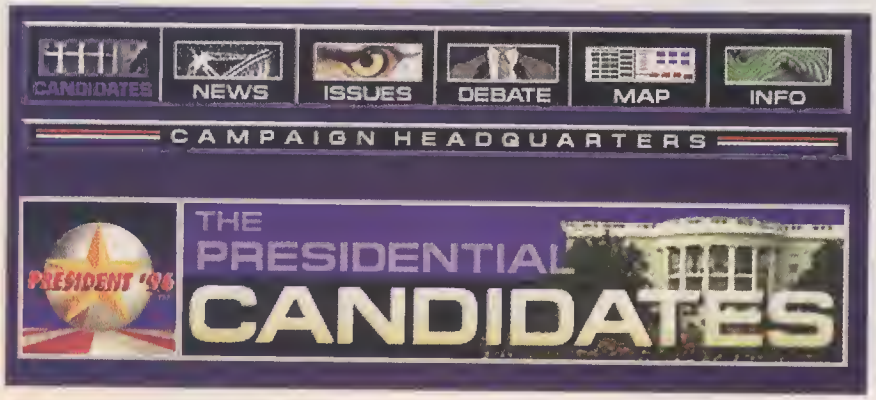
News worthy. Too busy at your computer to keep up with the day's events? Two new services offer to (unobtrusively) interrupt your regularly scheduled PC programs to bring you the latest news. The **IBM infoMarket NewsTicker** works with the latest versions of Netscape Navigator and Internet Explorer to roll a streaming ticker of up-to-the-minute information from Reuters, ESPN and other news organizations across your browser: if a headline catches your eye, click on it and you'll see the full story. **The PointCast Network** channels even more information into a screen saver. Both services are free, but do attach colorful ads to their reports.
World Wide Web:
NewsTicker: ***http://www.infoukt.ibm.com/***
PointCast: ***http://www.pointcast.com***

Call it Carville. This is an unpaid political announcement: Vote for Gen. Nicholas Russell, former chairman of the Joint Chiefs of Staff, the candidate whose campaign I'm managing (and you can, too) at **President '96**. This free electoral simulation gets my vote as a great way to learn the game of presidential politics as an insider. To succeed, you'll have to bone up on current issues, then advise your boss on how to respond to events, both real and imaginary, that are posted at the site each week. And even though the nominating conventions are right around the corner, rest assured it's not too late to hop onto this campaign trail.
World Wide Web: ***http://www.pres96.com/index.html***

Park place. At the heart of Manhattan sits **Central Park,** an oasis of green on an island of asphalt and concrete, yet many native New Yorkers—and even some tourists—take its charms for granted. Not so the creators of this virtual tribute on the Web, which includes a photo-filled tour with more than 50 stops. If you plan to be in the real park's neighborhood this summer, stop here first to learn about all the wonderful times you can have on its lawns and lanes—from bird-watching to carousel rides to the annual free Shakespeare in the Park festival.
World Wide Web: ***http://www.centralpark.org/home.html***

Take the plunge. You can almost hear the click-click-click of the chain pulling your car to the top of a 130-foot wooden trestle at **The World of Coasters**—and if you love roller coasters, your heart will be rising into your throat in no time. It's a scream to learn the rides' peaks and valleys in reviews, gather fun facts (the U.S. speed demon is the 80-mph Steel Phantom in West Mifflin, Pa.), and see 250 action photos dedicated to the principle that what goes up must come down...*fast!*
World Wide Web: ***http://www.rollercoaster.com/***

X marks this spot. Quick: What's a mosh pit, and why are barrettes and baby-doll dresses the height of Generation X fashion? Find out at **alt.culture,** a Web companion to a new best-selling encyclopedia of the gangsta-and-grunge set. Links take you to Web sites related to 900-plus entries; you can search by topic, or—if you catch the slacker spirit—just let the autopilot pull up new topics at random.
World Wide Web: ***http://www.altculture.com/***



Send comments to eckhouse@cerf.net, *and see* HomePC's *AOL forum or Web site for more Cyber Ace picks. (Addresses may change at providers' discretion.)*

Logo art by Robert Kopecky

MICRON MAKES THE DIFFERENCE.

The Micron™ Home MPC™ series makes the difference for anyone who wants great multimedia computing. You get a dazzling array of features, including Microsoft® Home Pak, with the right range of computing power to keep you up to speed. Best of all, the Home MPC gives you award-winning service and support backed by the industry-leading Micron Power℠ warranty.*

HOME MPC P120

net ready

- Intel 120MHz Pentium® processor
- 256KB pipelined burst coche, flosh BIOS
- 8MB EDO RAM • 1.0GB EIDE hord drive
- 8X EIDE CD-ROM drive, 3.5" floppy drive
- 16-bit stereo sound & speokers
- 28.8 fox/modem, speokerphone, voice moil
- Microsoft® Phone telephony softwore
- Internet ready
  - Internet in o Box from CompuServe/Spry
  - Internet Explorer
- Prodigy®, Americo Online® & CompuServe triol memberships
- PCI 64-bit 3D video, MPEG, 2MB EDO
- 15" Micron 15FGx, .28dp (13.7" disploy)
- *Tool-free* mini-tower or desktop
- Microsoft Mouse, 104-key keyboord
- Microsoft Windows® 95 CD & MS Plus! CD
- Quicken Financial Pak: Quicken Deluxe 5.0; Quicken Financial Planner™; Quicken Parents' Guide to Money™; Quicken Family Lawyer™
- Microsoft Home Pok includes: Works 4.0 for Windows 95; Publisher Deluxe for Windows 95; Encarta® 96; Encarta 96 World Atlas; Music Central™ 96; Wine Guide; Arcade 1.0; Scenes–Sports Extremes Collection; Cinemania® 96; Julia Child Home Cooking; Best of Windows Entertainment Pack; CD Sampler (including Fury³ game demo)
- 5-yeor/3-yeor Micron Power℠ worronty*

$1,999

With 133MHz Pentium processor . . . . . odd $100

HOME MPC P166

net ready

- Intel 166MHz Pentium processor
- 256KB pipelined burst coche, flosh BIOS
- 16MB EDO RAM • 1.6GB EIDE hord drive
- 8X EIDE CD-ROM drive, 3.5" floppy drive
- 16-bit Wovetoble 3D stereo sound
- Advent AV270 2x25 wott stereo speokers
- 28.8 fox/modem, speokerphone, voice moil
- Microsoft Phone telephony softwore
- Internet reody
  - Internet in o Box from CompuServe/Spry
  - Internet Explorer
- Prodigy, Americo Online & CompuServe triol memberships
- PCI 64-bit, 3D video, MPEG, 2MB EDO
- 17" Micron 17FGx, .26dp (15.8" disploy)
- *Tool-free* mini-tower or desktop
- Microsoft Mouse, 104-key keyboord
- Microsoft Windows 95 CD & MS Plus! CD
- Microsoft Office 95 & Bookshelf 95 CDs
- Quicken Finoncial Pak: Quicken Deluxe 5.0; Quicken Financial Planner; Quicken Parents' Guide to Money; Quicken Family Lawyer
- Microsoft Home Pok includes: Works 4.0 for Windows 95; Publisher Deluxe for Windows 95; Encarta 96; Encarta 96 World Atlas; Music Central 96; Wine Guide; Arcade 1.0; Scenes–Sports Extremes Collection; Cinemania 96; Julia Child Home Cooking; Best of Windows Entertainment Pack; CD Sampler (including Fury³ game demo)
- 5-yeor/3-yeor Micron Power worronty*

$2,999

With 150MHz Pentium processor . . . . . subtroct $100

MICRON™ ELECTRONICS, INC.

800-400-6576

http://www.mei.micron.com

intel inside pentium

Designed for Microsoft® Windows®95

Micron Power℠ Warranty & Support

- 5-year limited warranty on microprocessor and main memory
- 3-year limited parts-only system warranty
- 1-, 2- or 3-year optional on-site service agreement for all desktop systems
- 30 days of free Micron-supplied software support
- 30-day money-back policy
- 24-hour technical support

All sales are subject to Micron's standard limited warranties and terms and conditions of sale. Copies of the limited warranties may be obtained on our web site or by calling Micron.

atures and soft-
amily. A new
multimedia
e-art 3D video

Home MPC,
tional and
From the new
games in the
hing for every-

Imagine a comprehensive encyclopedia that gives you not only a wealth of written facts, but takes that information a step further by letting you see and hear what you're learning about. Knowledge has never been so compelling.

Ever yearn to publish a newsletter or design your own invitations? Have you thought you could create better greeting cards than those in a store? Discover your creative capabilities as this desktop publishing software brings out the artist in you.

Microsoft® Natural Keyboard

With the Microsoft Natural Keyboard, you can log hours on your computer comfortably. Designed to provide a more natural surface on which to type, you'll love it from your very first use. $79

Microsoft® SideWinder 3D Pro Joystick

This high-powered digital joystick adds enhanced precision and reliability to your naturally sharp instincts. If you love fast and furious games, then you're sure to love the Microsoft SideWinder 3D Pro Joystick. $59

Tollfree from Puerto Rico
800-708-1756

MICROSOFT WINDOWS NT READY-TO-RUN

intel inside pentium processor

MICRON™ ELECTRONICS, INC.

800-400-6576

http://www.mei.micron.com

ase Order Fax 208-893-8992 • Technical Support Available 24 Hours A Day–7 Days A Week • Technical Support E-mail: tech support.mei@micron.com

Inc. is not responsible for omissions and/or errors in typography or photography. Intel, Intel Inside and Pentium are registered trademarks Microsoft Corporation. Micron Power is a service mark of Micron Electronics, Inc. All other company trademarks are trade names of each ginal shipping/handling charges, applies only to Micron brand products and begins from date of shipment. All returns require RMA num-

CIRCLE READER SERVICE NUMBER 38

NOW LEARNING HAS BECOME A FAMILY VALUE.

"Micon's Home MPC P133 is one of that rare breed...the fastest we've ever tested...it wins our Top Rated award as the best overall system in the roundup."
-Family PC, May 1996

The Micron™ Home MPC™ gives you the latest fe
ware to make home computing fun for the whole f
blazing fast 8X CD ROM lets you run your favorite
titles with ease. And we've added a new state-of-t
card to bring 3D graphics to life like never before.

SERVICE • RELIABILITY • PC MAGAZINE READERS' CHOICE

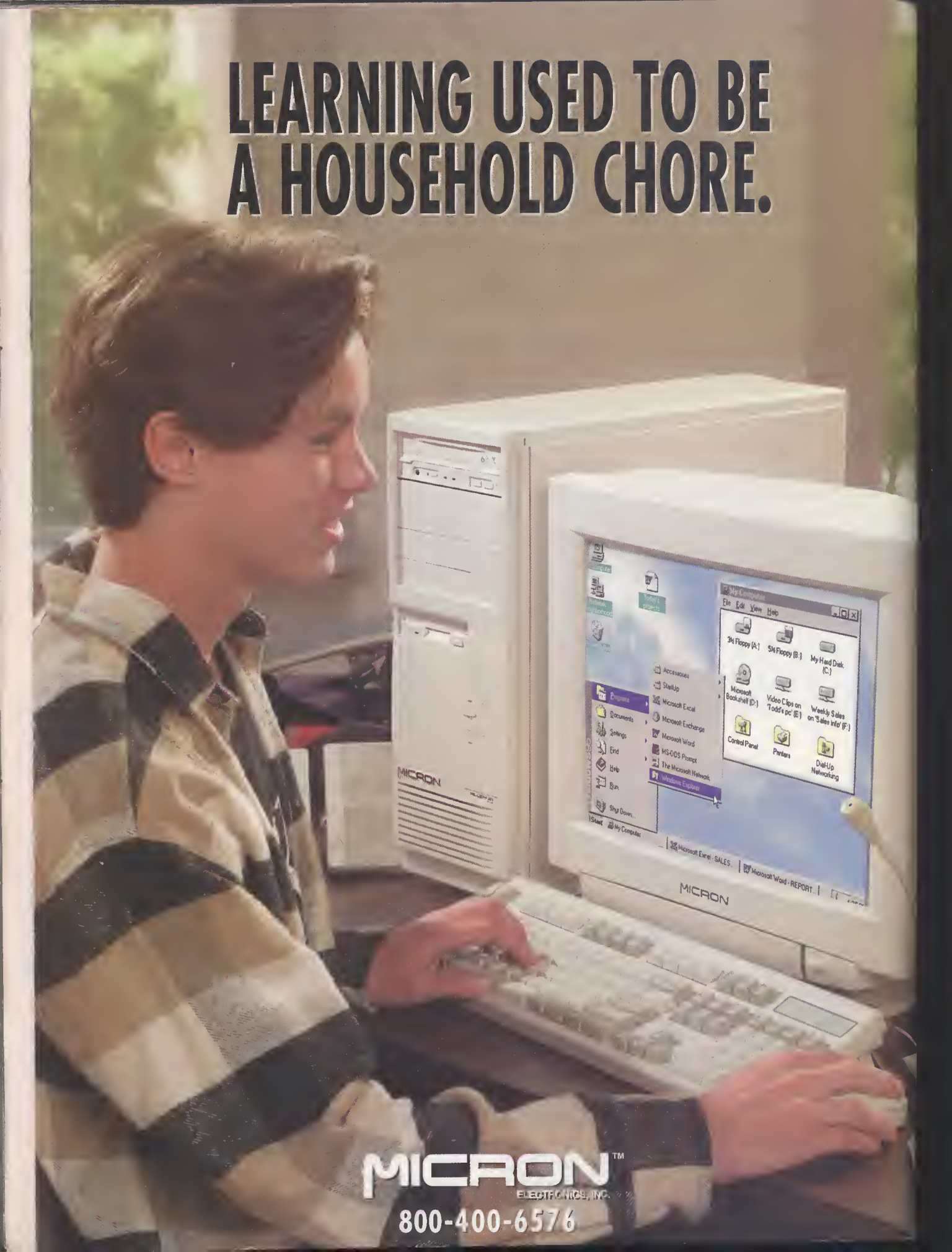
January 1995

Microsoft® home software package, free with your
gives you the most spectacular collection of educa
entertainment titles assembled in a single package.
Encarta® World Atlas to the exciting assortment of
Best of Windows Entertainment Pack, there's some
one in the family.

International Sales 208-893-8970 • International Fax 208-893-8993 • Tollfree from Mexico 95-800-708-1755 • Tollfree from Canada 800-708-1758

900 E. Karcher Road, Nampa, ID 83687 • Mon-Fri 6am-10pm Sat 7am-5pm (MT) • International Sales Hours: Mon-Fri 6am-7pm (MT) • 208-893-3434 • Fax 208-893-3424

©1996 Micron Electronics, Inc. All rights reserved. All prices and specifications subject to change without notice. Micron Electronics
of the Intel Corporation. Microsoft is a registered trademark and Windows, Windows NT and the Windows logos are trademarks of
respective company. Prices do not include shipping and handling. 30-day money-back policy does not include return freight and
bers and must be shipped in the original condition prepaid and insured. Lease prices based on 36-month lease. HOM-HMPC-960


LEARNING USED TO BE
A HOUSEHOLD CHORE.
MICRON
MICRON
800-400-6576